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RAILWAY AGE

A Vital Message to the American People and Their Governments

This issue of the *Railway Age* is unique because it is the first issue of any publication in the history of journalism in which most of the *advertising* as well as the *editorial* pages have been devoted to presenting to the public and to government authorities all the facts about a single great economic problem of vital importance to all of the people of a great nation.

That great economic problem is the railroad problem of the United States; but it is much more than a problem of the railroads. The advertising and editorial contents of this issue show this. Most persons unconsciously assume that whether the railroad problem is satisfactorily solved will affect only the managers and employees of the railways and the owners of their bonds and stocks. The contents of the editorial and advertising pages of this issue of the *Railway Age* are a refutation of this assumption. They show that a satisfactory solution of the railroad problem is of vital importance to—

Who is Affected by the Railroad Problem?

The 7,500,000 persons including the 1,700,000 men normally employed by the railroads and their families.

Thousands of communities, large and small, throughout the country, including numerous "railroad towns," in which railroad employees and their families are a large part of the population, and business in which has been disastrously reduced by the reduction of railroad employment.

Some 4,000 manufacturing companies which have plants located in some 700 cities and towns in at least 38 states, and numerous coal mining and lumber companies, all of which are largely, mainly or entirely dependent upon railroad purchases for their business.

Almost 6,500,000 persons including the families of about 1,500,000 persons who are normally employed by the industries just mentioned in producing equipment, materials and fuel for the railways, and all the people of all the communities where employment and business have been reduced by the terrific reductions made in the purchases of the railways from these industries.

All the millions of depositors in savings banks and owners of life insurance policies whose savings of a life-time have been put in jeopardy by the jeopardizing of the billions of dollars of railroad securities owned by savings banks and life insurance companies.

All farmers, business men, producers and shippers whose essential railroad service is being threatened, and whose prices and markets are being demoralized by government-subsidized and unregulated transportation by air, highway and waterway.

Taxpayers in every community whose taxes are being increased by the subsidization of transportation by air, highway and waterway, and who are being threatened with further increases of taxes due to the loss of railway taxes for the support of their schools and local and state governments that would be caused by the threatened destruction of railway property and railway taxpaying ability by the tax-subsidized competition of other carriers.

The Menace of Government Ownership

All the people of the United States, not only for the reasons above given, but because a continuance of the present policies of the state and national governments in dealing with the different carriers by railway, highway, waterway and air would compel the adoption of government ownership of railways; render neces-

sary a large increase in taxation to pay huge railway deficits, and make the railroad problem a more difficult and dangerous political problem than any with which the American people ever have been confronted.

This issue is a joint effort by the *Railway Age* and by the railways and manufacturers whose advertisements appear in it, to present to the public the stark realities of the present railway situation, and of its effects, ramifying into every state and community—widespread unemployment, destruction of business and property values, threatening of the entire economic and financial structure of the nation.

The editorial articles are roughly divisible into three series, and the facts presented in them are supplemented and supported in detail by information given in the advertising pages. The articles in the editorial pages deal with—

First. What has happened to the railways, and—as a result of the present transportation situation—to railway employees, to manufacturers that sell to the railways and their employees, to financial institutions, to producers and shippers.

Second. The causes of the present railway situation.

Third. The remedies for it.

What Has Happened to the Railways?

What has happened to the railways? **Their passenger traffic has declined in 1932 to the lowest level since 1901, their freight traffic to the lowest level since 1909.** Their gross earnings in 1926 were \$6,509,000,000; in 1929, the most prosperous year in the history of the country, \$6,373,000,000; while in 1932 they will be only about \$3,200,000,000—a reduction of about \$3,310,000,000 since 1926 and of about \$3,170,000,000 since 1929.

In an effort to offset this tremendous reduction of earnings the managements of the railways have reduced yearly operating expenses about \$2,256,000,000 as compared with 1926, and about \$2,050,000,000 as compared with 1929. Railways must not only operate their trains, but maintain their locomotives, cars, tracks and other property if they are to keep them in fit condition for rendering good and safe passenger and freight service. The expenditures of the railways of the United States for the maintenance of their properties were \$337,000,000 less in 1930 than in 1929; \$711,000,000 less in 1931 than in 1929, and will be \$1,100,000,000 less in 1932 than in 1929. In other words, **total expenditures for the maintenance of railway properties have been \$2,148,000,000 less during the last three years than they would have been if they had averaged as much per year as they were in 1929.**

But this is not all that has happened to the railways. They spent an average of \$810,000,000 a year in improving their properties in the five years ending with

1930. They spent \$450,000,000 less than this for improvements in 1931. They probably have spent in 1932 the smallest amount for improvements within 40 years. **Railway improvement in the United States has virtually stopped.**

Nor is this all that has happened to the railways. Net operating income is the part of their earnings they have left after paying operating expenses and taxes. It has declined from about \$1,275,000,000 in 1929 to about \$250,000,000 in 1932,—an amount sufficient to pay less than one-half of the interest upon their debts. In their financial extremity they have increased their indebtedness this year hundreds of millions of dollars by borrowing money from the federal government to pay interest, debts which have come due, and even taxes to local and state governments.

Railway Situation Responsible for 2,000,000 Unemployed

What has happened to railway employees as a result of this railway situation? In 1926 the railways employed 1,805,780 persons and paid them almost 3 billion dollars in wages. In 1932 they have employed almost 760,000 fewer, and paid them almost \$1,400,000,000 less. **The number of railway employees in this country is now the smallest since 1900.**

What has happened to the industries of the country as a result of this railway situation? The purchases made by the railways from other industries have been reduced about 70 per cent below normal, and will be about \$1,600,000,000 less in 1932 than they averaged in the five years ending with 1929. This reduction of railway purchases has thrown out of employment probably 1,200,000 persons in industries for which the railways afford a market.

The reduction of employment on the railways themselves, together with the reduction of employment in other industries due to the drastic curtailment of railway purchases, has thus **thrown out of work almost 2,000,000 persons and deprived almost 9,000,000 of a livelihood.**

If the reader desires details as to where this unemployment in industry has occurred, he can find some of them in the advertising pages of this issue. He can learn there that in 1923 the Pullman Car & Manufacturing Company and the Standard Steel Car Corporation—now consolidated—employed almost 23,000 persons in building cars for the railways, and are now employing less than 1,200, a reduction of almost 95 per cent, and that the employees of these companies are out of work in more than a dozen places as widely scattered as St. Paul, Minn., Michigan City, Ind., Richmond, Va., Birmingham, Ala., Worcester, Mass., and Houston, Tex.

He can learn elsewhere in the advertising pages that a revival of railway purchasing would cause reemployment of hundreds of men in plants of the National

Malleable & Steel Castings Company at Sharon, Pa., Cleveland, Ohio, Chicago and Melrose Park, Ill., and Indianapolis, Ind. He can learn there that it would put back to work some 2,000 men in the plant of the Bettendorf Company at Bettendorf, Iowa. He can learn that it would restore to employment 1,500 men in the plant of the Mt. Vernon Car & Manufacturing Company in the small city of Mt. Vernon, Ill.

If he will read the article entitled, "Railway Purchases—A Vital Force in Business Recovery," which appears elsewhere in the editorial pages, he will find reference to 650 cities and towns in 38 states in which hundreds of thousands of persons have been deprived of employment by the reduction of railroad buying and in which industrial employment would be correspondingly increased by a resumption of railroad buying.

Effects on Industry, Finance and Taxes

What has almost happened, and may happen yet, to the financial institutions of the country because of the virtual or actual bankruptcy of many railroads of whose bonds they are such large owners? What is happening to all classes of business interests and farmers, producers and shippers as a result of the demoralization of freight rates and prices being caused by the subsidized and unregulated competition in transportation of which the railways, the industries from which they buy, and their employees are the principal victims? Is transportation by railroad still the most essential form of transportation in this country? If so, what is going to happen to agriculture and industry if present demoralizing influences are allowed to continue to prevail, with the result of rendering it impossible for the railways to furnish their essential service? What is going to happen to the taxpayers of the country if they continue to increase the huge tax burden now being borne by them to subsidize competition with the railways, with the result, among other things, of greatly reducing the taxes that can be collected from the railways for the support of schools and local governments? Articles published in this issue suggest answers to all these questions which are not pleasant to contemplate.

The causes of the present railway situation are easy to state. The most important is the depression that has prevailed for three years, and has reduced the business and earnings of the railways, as of other industries. It should not be overlooked, however, that the railway situation itself, with all of its disastrous effects ramifying throughout the industry and commerce of the country, has been one of the principal causes of the depth and length of the depression. Furthermore, as articles appearing elsewhere clearly show, the depression, although the most important immediate cause of the present railway situation, is by no means the only important cause of it. It is due as well to the kind of government regulation to which the rail-

ways are being subjected, and to the government-subsidized and unregulated competition of other carriers.

Causes of Railway Situation

The depression of 1921-1922 ended before the end of the latter year. The Transportation act of 1920 assured the railways that their rates would be so regulated by the Interstate Commerce Commission that under honest, economical and efficient management they would be allowed to earn a fair return. They never earned it after business revived in 1923 or in any other year.

In the early years of the period 1923 to 1929 this was entirely due to the commission's regulation of rates. In the later years of the period it was also due to losses of traffic to carriers by highway, waterway and air. These other carriers were not only aided by government subsidies, but the railways have been more and more hampered by strict regulation of their service and rates and by the lack of any such regulation of their competitors.

Between 1920 and 1929 the annual passenger earnings of the railways declined almost \$426,000,000, whereas throughout their previous history their passenger earnings had steadily increased. Between 1920 and 1929 their freight business increased an average of only 1 per cent annually, whereas during the preceding 30 years it had increased an average of 7 per cent annually.

The subsidized and unregulated competition of other carriers has been felt by the railways with unprecedented severity during the depression, and especially during 1932. All the estimates heretofore made regarding the amount of freight earnings being lost by the railways owing to truck competition have been far too low.

A survey now being made of truck traffic in the Mississippi valley states, which has been completed in only part of these states, indicates that this year the trucks are handling freight which would have yielded the railroads in Iowa more than \$15,000,000 in revenue; in Minnesota, almost \$12,000,000; in Kansas, more than \$9,000,000, in North Dakota, almost \$1,300,000.

If what is occurring in these states is typical of what is occurring throughout the country, **truck competition is this year depriving the railways of \$500,000,000 or \$600,000,000 of freight earnings**,—that is, of 20 to 25 per cent of the freight earnings they would otherwise have in spite of the depression.

A revival of general business would not restore to the railways their normal earning, employing and purchasing capacity if present government-aided and cut-throat competition in transportation were allowed to continue.

Can there be such a revival of normal general business, however, as long as the restoration of the normal

earning, employing and purchasing capacity of the railways is prevented by such competition, with all the unfair discriminations, rebating and demoralization of prices and markets which it causes?

Changes in Regulation that are Necessary

A revival of general business is essential to a restoration of the solvency of the railroad industry and of its ability to give adequate employment and make adequate purchases.

The managers and employees of the railways should give full consideration to the great changes in economic conditions which have occurred within recent years—to the general decline in prices and incomes, to the great amount of unemployment, to the increase in competition with the railways—and co-operate in effecting all the improvements in railway service and all the economies in railway operation, including changes in employees' working conditions and wages, that they can and should make as their contribution toward the economic recovery of the railroads and of the nation as a whole.

But the railway situation demands the adoption of remedial measures by state legislatures, by Congress and by the Interstate Commerce Commission, which are set forth at length in articles published elsewhere in this issue. These measures may be summarized as follows:

(1) Retroactive repeal by Congress at the earliest time possible of the recapture provisions of the Transportation act of 1920. The railways have fallen far short of earning the fair return assured by that act, and yet because it is claimed that some of them in some years have earned more than six per cent the government is demanding that they hand over to it \$360,000,000. The government having failed to make good its assurance that they would be allowed to earn a fair return, why should it, when it is loaning them public money because they are virtually or actually bankrupt, plunge them more deeply into bankruptcy by recapturing so-called "excess" earnings from them?

(2) Changes in the provisions of the Interstate Commerce act regarding rate-making that will apply them to intercoastal carriers by ocean, and to carriers by inland waterway, highway and air, or a revolutionary reduction in the requirements and restrictions imposed upon the railways.

(3) Legislation that will require all other carriers to publish their rates as the railways are required to publish theirs.

(4) Legislation that will either deprive the Interstate Commerce Commission of authority to suspend and prevent changes in

rates proposed by the railways, or that will authorize it to suspend and prevent changes in rates proposed by other carriers.

(5) Repeal of the provision requiring the railways to give 30 days' notice of changes in their rates, or adoption of provisions requiring other carriers to give equal notice of such changes.

(6) Repeal of the provisions of the Interstate Commerce act which prohibit the railways from making lower rates for a longer than for a shorter haul to meet competition, if other carriers operating in intercoastal ocean service, on inland waterways and on highways are to be left free to make their rates as they see fit.

(7) Legislation that will retire the federal government from the operation of its barge line in the Mississippi valley.

Withdraw All Subsidies from Transportation

(8) State and national legislation that will withdraw all subsidies from competing carriers, these subsidies to those that use highways and waterways to be withdrawn by requiring them to pay rentals or tolls sufficient fully to reimburse the taxpayers for the costs incurred by them in providing these facilities of transportation.

(9) Cessation of all public expenditures for commercial transportation upon waterway and highways the commercial carriers upon which cannot pay rentals or tolls sufficient fully to reimburse the taxpayers for the costs incurred by them in providing these means of commercial transportation.

We are in the midst of the greatest economic crisis in history. In no other industry, excepting perhaps agriculture, is this crisis so severe and dangerous as in the railroad industry. The present depression is an economic condition due to economic causes, and it can be terminated only by the adoption of government and business policies the reverse of those that have produced it. It is largely due to a great increase of government interference in business and to vast unproductive government expenditures for the subsidization of different industries and classes. The railroad industry is the most outstanding and severely suffering victim of these policies. The recovery of the railways is one of the essentials to the recovery of national prosperity. They cannot recover under government policies that promote every kind of competition with them, and at the same time impose restrictions upon them that prevent them from meeting this competition, and that hamper their managements in adjusting their service, rates and operating costs to new conditions.

Wanted—a Transportation Policy

All progress in transportation has been toward better systematization, which railways have attained to high degree—Growing importance of other agencies requires their inclusion in any adequate national plan.

THE primary concern of the American people as regards transportation is not that this or that type of service be perpetuated or extended, but rather that transportation in its entirety be systematized and harmonized to insure the best possible service at the lowest total cost to the entire country. The railroad service now being received by a certain industry may suit its purposes in a highly satisfactory manner and yet traffic on the line which reaches its plant may be so light that its operation is uneconomical, that the national interest might require its abandonment. Similarly, the operation of mammoth trucks with one or two full trailers at high speeds, providing over-night service over great distances, may inure to the immediate benefit of a certain merchandising organization, even if such operation does go contrary to the general public interest. A heavy industry situated so that it may use a canal may be highly appreciative of the fact that the taxpayers are paying a large proportion of its transport costs—particularly when it is able at destination to sell its products F. O. B., plus the *railroad* freight rate, pocketing the difference. It does not necessarily follow, however, that the national welfare is promoted by the provision of this facility.

Special Privilege No Advantage

If It Results in Poor Business

Transportation is such an important economic function that the efficiency or inefficiency of its operation, on a national scale, so affects business in general that it is doubtful whether even those who benefit from special privileges in the long run gain anything, if the result of these special privileges is wasteful and chaotic transportation conditions which act to depress general business, including the markets of the industries which receive special favors.

Railroad men have long been trained to look upon their individual companies as something more than individualistic enterprises, privileged to seek their profits how and where they may. Over a long period of years recognition has grown of the fact that no railway company can be permitted to live to itself alone, but that it has the greater responsibility of maintaining itself as an integral part of the national transportation machine; and that its affairs must be conducted in such a way, not only that its workers and owners may gain a living from the service it sells, but also that it may never fail to do its part, nor contribute to the failure of other railways to do their part, in supplying the entire nation with adequate and efficient transportation.

This view of railroading exists not only among railroad men, but it is firmly fixed in law as well. The Transportation Act of 1920 advanced the ideal of a national transportation system, to which the rights and privileges of individual companies were subordinated, to a most lofty plane indeed. So thoroughly imbued with a broad national point of view were the framers of this Act, that it is inconceivable that they would have applied it only to railways and not to other forms of transport, if they had had the slightest suspicion that the growth of competing forms of transportation would

have attained the magnitude which they did in fact attain in the decade following the adoption of this Act.

But these new forms of transportation have developed, and to a degree which has all but destroyed the conduct of our transportation as a nation-wide system. If the whole national policy toward transportation, developed from the wisdom resulting from years of bitter experience, is not to be allowed completely to disintegrate, the newer forms of transportation must be brought into the picture. They, as well as the railways, must submit to a higher duty than that of immediate individual gain and be called upon to assume the responsibilities inherent in a position as a component part of a national system of transport. Such responsibilities, as indicated above, include not only the economic performance of such functions as may be properly assigned to any individual unit in the system, but also refraining from conducting their affairs in such a way as to lower the efficiency of any other essential unit in the national system.

Equality for All Forms of Transport

The first requisite of a transportation agency which is brought into a national system of transportation is that it should be placed in a position of approximate equality with all other agencies before the public authorities to whom the task of formulating and giving effect to the national transport policy is assigned. To this end, when the newer forms of transportation are brought under such a policy, then, they should be required to submit to approximately the same conditions that are now applied to the railways, except in so far as these latter require some modification in the light of the experience of the past few years. Such experience indicates that some of the regulation now applied to the railways is no longer necessary, whereas it may have been necessary when the railways had practically a monopoly of transportation.

How Unshackle the Railways?

There is, for instance, no sound reason why the railways alone should be singled out from all persons and corporations in the country and denied the privilege of operating vessels through the Panama canal, and why obstacles should be placed in the way of their engaging in water transportation anywhere. This handicap should be removed. Further, there is no justice or necessity for compelling the railways to make joint rates and through routes with water carriers which are in direct competition with them. The Hoch-Smith resolution which singles out the railroads to bear the burden of depressed industry is manifestly unfair, unless all competing forms of transportation should likewise be required to bear their share of the burden—which of course is impracticable. The elaborate provisions in connection with railroad valuation are no longer necessary and are costly. In the interests of economy, they should be repealed and the railways required merely to keep up current physical inventories. The so-called recapture clause, requiring the government to collect large sums from railways, which as a system have never

even approached earnings as great as those contemplated by law, is a manifest absurdity and injustice, is a handicap on the railways not borne by their competitors, and should, as the Interstate Commerce Commission recommends, be repealed. Railway consolidation, contemplated on a wholesale scale by the Transportation Act of 1920, is materializing very slowly. It would proceed more quickly, in the public interest, if greater latitude toward approaching this goal were permitted the railways themselves, under proper supervision.

The reparations provisions of the Interstate Commerce Act, which allow shippers to file complaints regarding supposedly "unfair rates" long after freight has been delivered and bills paid, and collect claims if the Commission finds the rates too high, should be revised to conform to the recommendations of the Interstate Commerce Commission, restricting the time for making complaints and providing that no reparations be awarded except on proof of actual damage.

The railways need greater latitude in meeting the rates and character of service provided by their competitors. One of the serious handicaps they suffer in this connection is the so-called "long-and-short-haul clause" of the Interstate Commerce Act which prohibits lower rates for a longer haul than for a shorter one, except by special permission of the Interstate Commerce Commission, which it is usually reluctant to grant. The railways recognize the justice of this clause in general, but there are situations where competition is met in connection with the long hauls where it is not encountered with the short hauls. In such instances, it is obviously unjust that they be required to adhere to this principle, as they are today, to an extent which involves heavy losses of traffic and revenue to them.

Meeting the Rates of Competitors

Similarly, to meet competition of other forms of transportation, railway regulation should be modified to permit the carriers to make rates on particular commodities, when and where such competition arises, independently of the rates on other commodities in which competition is not involved and independently of rate relationships with other commodities or other territories. The existence of competitors who are willing to make such rates on particular commodities between particular points, but who do not agree to transport all commodities between all points on the same basis, is sufficient proof that establishment of these special rates by the railroads would not involve any new upset in rate relationships and that, if these relationships are upset, it is competitive transport and not the railways which are responsible.

The railways are particularly handicapped in meeting equally the competition of other forms of transportation, and have lost business which they might otherwise have held by the requirement of a 30-day notice for rate changes. Whatever time limit is set, it should be the same for all competitors. When railways file notice of rate changes, the Interstate Commerce Commission now has authority to suspend them pending investigation, and this it frequently does if any considerable complaint about the proposed changes arises. Following the suspension, a long period of investigation ensues before the commission arrives at a decision, either allowing the rates to go into effect or disapproving of them. This long interval, particularly if the proposed changes are reductions to meet competition, enables the competitive agencies to capture the business while the Interstate Commerce Commission is trying to make up its mind. Obviously it is unfair to permit suspension by the commission of railway rates pending investigation unless

similar suspension is made possible for highway and water line rates.

The Interstate Commerce Commission now has authority to set minimum rates for the railways and, in a contested case, the railways are required to prove that proposed reductions would still provide adequate remuneration. Their highway and waterway competitors are under no such handicap, and actually appear before the commission and protest against proposed reductions in rates which the railways desire to make for their patrons. This power to establish minimum rates should be either applied to or removed from all carriers.

Traffic Should Find Most Economical Channel

It is to the national interest that traffic should move by the most economic means of transportation. When the conditions under which each conduct their activities are equalized, we may expect traffic to flow into the proper economic channel, and not, as is too frequently the case today, be diverted from it by dams and restrictions of all sorts in one channel and a free and untrammelled course in others. To secure such equality it is necessary not only to remove from the railways some of their handicaps, as outlined above, but it is also essential that much the same measure of control be exercised over other forms of transportation as that under which the railways are regulated.

In any scheme of regulation of interstate motor transport, taxicabs, school buses and hotel buses should be excluded, since the service that the two last provide are not commercial in the ordinary sense, and since taxicabs are almost entirely a local facility. Interstate common carriers, however, either of passengers or freight, should be required to obtain certificates of public convenience and necessity from the Interstate Commerce Commission prior to inauguration of service, in the same manner that railway companies are required to secure such a certificate before building a new line. Much the same considerations which guide the commission in determining whether or not a railway should be permitted to construct a new line should guide it in granting or refusing such certificates for common carriers on the highways—namely, the quality and permanence of the service which the applicant is prepared to offer; the adequacy of or necessity for the continued existence of other transportation service in the area where the common carrier proposes to operate; the public necessity or convenience to which the proposed operation will cater; and the financial responsibility of the applicant. Such common carriers should be required to establish and publish reasonable rates and maintain them without discrimination. They should be required to keep uniform accounts to be prescribed by the Interstate Commerce Commission and to file any other returns which that body may require, in order that impartial authorities may be always accurately informed about the state of this branch of our national transportation system. Security issues should likewise come under the jurisdiction of the commission, so that the investing public, as well as the traveling and shipping public, may have some degree of protection. Such regulation would closely parallel that under which the railways now operate.

Contract Carriers Should Be Included

Railways are essentially common carriers, but it is freely recognized that there are inherent differences between the railways and their competitors in many respects and that, secondly, any scheme of regulation must be modified to an extent necessary to allow for these differences. No scheme for controlling common carriers on the highway could succeed which did not include

some measure of control over commercial users of the highways other than common carriers. All interstate commercial highway carriers, therefore, should be required to secure a permit from the regulatory authorities and to file such reports and carry such insurance as might in reason be prescribed. Interstate contract carriers ought further to be required to observe minimum rates and follow practices outlined by regulatory authority which would prevent them from competing unfairly with interstate common carriers. It is, of course, essential that the state and local governments which own and maintain the highways be permitted to impose upon all commercial operations, interstate as well as intrastate, such fees for the use of the highways as may properly compensate them, for their investment in and maintenance of these facilities including fair taxation over and above the fees for road use. The states and local governments also should decide upon such limitations as to weight, speed and dimensions of vehicles as may be found reasonable or necessary. The railways should, in the interest of transport coordination, of course, be clearly authorized by law to engage in highway transportation on the same terms as all others.

States Have Special and Important Duties

Successful control of commercial motor transport, it must be emphasized, cannot be achieved by the action of the federal government alone. The highways are the property of the state and local governments, which gives such governments responsibilities in connection with interstate commerce by highway, as well as intrastate commerce, that they do not have in the case of the railroads which are in private ownership. The state and local governments, as owners of the highways, are to that extent actual participants in highway transportation and hence they acquire by right some of the functions which, in a purely private enterprise, inure entirely to management. State regulatory authorities, therefore, should, in the public interest, not only be given power to grant or withhold certificates of public convenience and necessity, to regulate rates, accounting, and security issues of

intrastate common carriers, and to control permits, accounting, and insurance for other intrastate commercial carriers; but in addition to this regulation of intrastate traffic, the state and local governments have the further duty to assume effective control of both interstate as well as intrastate commerce on the highways as far as the qualifications and hours of service of drivers, the regulation of dimensions, weight and speed of vehicles, and the collection, in addition to fair taxes, of adequate charges for the commercial use of the highways based upon the extent of this use, are concerned.

In the case of the railways, the qualifications and rules governing employees are left largely in the hands of railroad management, although in many important respects, the various governments also regulate the conditions of railway service. Since the railways own the equipment they operate, as well as the roadway they use, it is to their advantage to promote safe and efficient operation of the entire process of railway transportation. On the highway, however, the operator has no such incentive. His interest lies in getting his transport task done as cheaply and as quickly as possible, regardless of the effect which it may have on other transportation on the highway—which is not, of course, to say that all highway operators press their economic interest to the total disregard of the rights of others. But there are many offenders and to reduce accidents, prevent “hogging the road,” to eliminate unsafe or overworked drivers, it is essential that the state assert its authority—otherwise there may be no assurance of proper control. As for permissible dimensions and weights of motor vehicles, the state and local governments must determine the maximum capacities which their highways can admit without damage or danger. Such limitations should, of course, take into consideration the right to convenience and safety of the operators of non-commercial vehicles on the highways.

Motor Fees Are Rentals, Not Taxes

A tax is defined in Webster's dictionary as “a burden, usually pecuniary, laid upon persons or property for public purposes.” Rent is defined legally as “the return

**Can Transport
Be Dealt With
as a National
System If Non-
Railroad Traf-
fic (30 per cent
of total and
growing) Is
Not Included?**

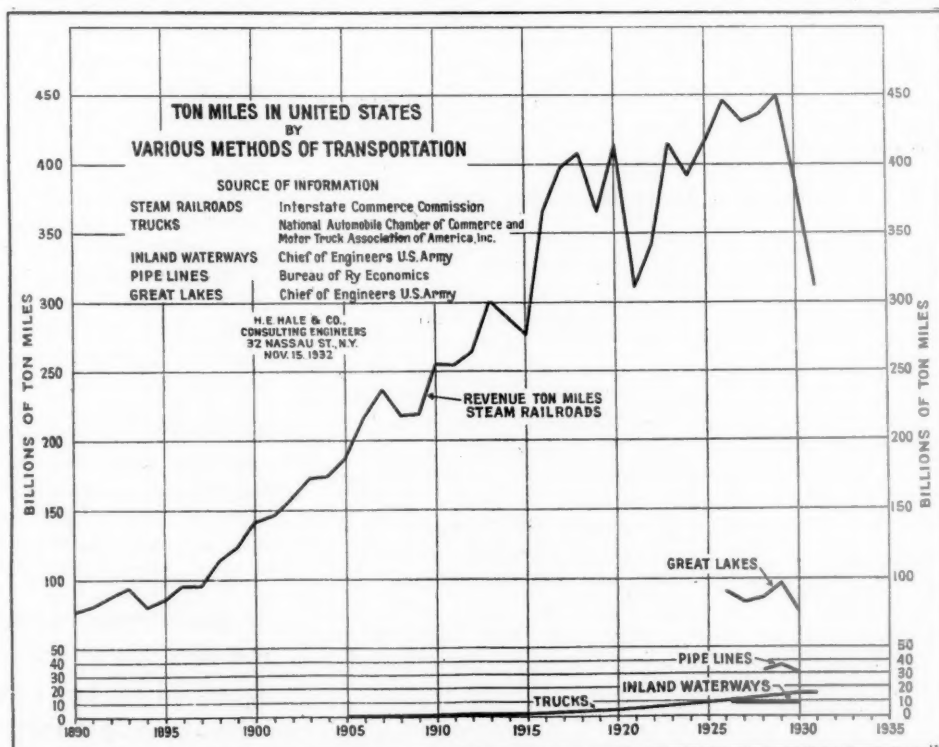


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made by the tenant or occupant of land or corporal hereditaments to the owner for the use thereof." Bearing these definitions in mind, it becomes evident that most of the levies now paid by operators of commercial motor vehicles are not taxes at all, but rather are rental payments. The only burdens laid upon operators of commercial motor vehicles for public purposes are the sums they pay, if any, in income or property taxes. The sums they pay in so-called gasoline and license "taxes" are not taxes at all, but are rental payments for the use of public property as a place of business. That they are not taxes in the ordinary sense is proved by the fact that they can be avoided by the simple device of refusal to use the facilities which are offered in return for these taxes. One cannot avoid paying taxes on his house by refusing to live in it, or on his farm by refusing to cultivate it. He can, however, avoid paying *rent* by not occupying the house or farm. Gasoline "taxes" and license fees are rents in exactly the same sense that rents are paid for the occupation of a house or farm.

Taxpayers Deserve Relief

State governments owe it to their hard pressed taxpayers to relieve them of meeting a large share of the transportation bill of any class of shippers out of general taxation. To grant this necessary relief, fees or rental charges for the commercial use of the highways must be raised to thoroughly compensatory levels—this in addition to fair tax payments for the general expenses of government, of which highway transportation, the same as any other business, should bear its full share.

The elimination of grade crossings brings but little benefit to the railways, whereas it greatly advantages their highway rivals. The railways should not be forced to make capital expenditures for grade crossing elimination in excess of its benefits to railway transportation. The cost of such improvements should be distributed equitably in proportion as the benefits are.

Legislation to give effect to these needed changes will go far toward bringing highway transportation into a national transportation plan, according it a definite position in such a plan, while at the same time requiring it to assume the obligations inherent in becoming an acknowledged part of such a system. Much the same responsibilities and restrictions must also be applied to waterway transportation to assure that it also shall take its proper place in the comprehensive national plan.

Waterway Users Should Pay Rental

Departure from a national view of transportation has been even wider in the case of waterway transportation than in that of highway transport. For the inland waterways, the government provides and maintains free of charge facilities for the use of private vessels, not even exacting such fees as are assessed against highway operations. In addition to that the federal government itself at great cost to the taxpayers, has been and is conducting a barge line on the Mississippi and Warrior rivers in competition with private enterprise. Obviously, the first step that should be taken in any plan to bring the waterways into a national transportation system would be the retirement of the government from this activity. The inland, coastwise and intercoastal water lines should be brought under the jurisdiction of the Interstate Commerce Commission and the Interstate Commerce Act to the same extent as the railways, in so far as the Act could be made to apply to water line operations.

Proper charges for the commercial use of improved waterways should be levied to yield a return upon the

investment of public money in them and to cover expenditures for maintenance and operation—this not only for the purpose of placing water transport on a basis of self support equivalent to that of the railways, but also to relieve the over-burdened taxpayers of the unjustifiable burden they now bear in meeting a large share of the transportation costs of favored shippers. Moreover, just as the burden of highway grade crossing elimination needs to be distributed so it will bear upon all interested parties in proportion to the benefits they derive, it is essential, also, that the law governing changes in bridges over navigable streams be changed so as to provide that the costs be met by the interests which will profit by waterway development and not by other interests which stand to gain nothing from such changes. Such a change in policy would afford just relief not only to the railways, but also to local governments and highway commissions which are put to a heavy expense at no benefit to them whenever the waterway developers proceed with the construction of additional navigable channels.

If a railway wishes to extend a line it must first convince the Interstate Commerce Commission that there is sufficient traffic to warrant this construction and that the territory is not yet provided with adequate transportation. Furthermore, the applicant railway must convince the commission that the probable earnings of its proposed extension will yield a fair profit after taxation. There is urgent need that the same impartial examination into proposed expenditures on waterways be instituted and that further spending of the taxpayers' money be prohibited unless, after consideration of all these elements and a proper regard for the effect on existing necessary transportation, the project shows reasonable promise of profitable operation.

Equality and Economy

In 1931 almost 32 cents out of every dollar of net operating revenue earned by the Class I roads was paid in taxation for the support of the national, state and local governments. In the first nine months of 1932, more than 43 cents out of every dollar of net operating revenue was put aside for the tax gatherer. As one of the principal sources of tax revenues in the country and one which has suffered most severely from the burden of taxation, the railroad industry may fairly ask for the greatest possible economy in government expenditures in general and the elimination of all such expenditures which are used to subsidize the railways' competitors. Along with other taxpayers, the railways may properly expect that all forms of transportation be required to pay compensatory fees or rentals for the public property they use, and in addition, that they share fairly with the railroads and other taxpayers in the general expenses of government. No other form of transportation has yet offered to supplant the railroads, nor is it likely one will ever be able to do so at costs comparable to those which the railroads can offer. The railways, then, must be maintained. They can only be maintained, however, if other forms of transportation likewise are brought, on a basis of equality with them, into the same national system.

To conclude, as we started: The primary concern of the American people as regards transportation is not that this or that type of service be perpetuated or extended, but rather that transportation in its entirety be systematized to insure the best possible service at the lowest total cost to the entire country.

Are the Railways Obsolete?

A comparison of the economics of the more important forms of transport shows the railways by far the most efficient for handling the great bulk of the nation's traffic

"The railways came along and put the old canals and the stage coaches out of business but nothing was done about it. Now the railroads are in the same fix—the trucks, the airplanes and the inland waterways are putting them out of business. They complain, but they cannot stand in the way of progress."

—From a communication addressed to *Railway Age*.

THE above quotation is selected as typical of one point of view on the present chaotic transportation situation. It is demonstrably unfounded upon either fact or logic, but it is plausible and has many well-intentioned supporters. It deserves, therefore, frank and complete answer, to which task we may now turn our attention.

Transport is accomplished mechanically, in a variety of ways but, for purposes of this discussion, we may restrict ourselves to the four most important means:

Four Transport Methods Compared

1. The mechanically-propelled wheeled vehicle on rails (i.e., railways).
2. The mechanically-propelled (rubber-tired) vehicle upon hard-surfaced highways (motor vehicles).
3. A vessel mechanically propelled through water by force exerted against the water. This form of transport is divisible, as far as North America is concerned, into three categories:
 - A. Towboats and barges on artificial or semi-artificial inland waterways (canals and improved rivers).
 - B. Vessels on the Great Lakes.
 - C. Ocean transport, including, of course, coastwise vessels.
4. Vehicles propelled, and sustained against gravity, by mechanical force exerted against the air (airplanes).

It is a difficult task to contrast or compare these methods of transport from an engineering or economic standpoint because of their physical differences and prevailing practices of taxation and accounting which vary so widely among them. Let us consider, briefly, some of these differences so that we may take them into full account in comparing the relative efficiency and desirability of the various forms of transportation. Using the same classification of the several forms of transport as outlined above we note the following peculiarities surrounding each:

1. Railways—provide, themselves, right-of-way and track and must earn interest upon, pay taxes upon and maintain it. On a level line their mechanical efficiency is probably somewhere within the range of that of efficient water craft. If grades have to be surmounted the railway is far more satisfactory than the

waterway since differences in elevation occasion currents or necessitate the use of locks.

2. Motor vehicles—pay special fees equivalent to about half the roadway expenditures made for them, the rest being paid by the general taxpayers, but are freed from financing or paying interest or taxes upon the investment in roads. The force needed to move a load on the highway is greater than that required for a vehicle of the same weight on rails.

Three Varieties of Water Transport

3. Water Carriers:

A. Artificial and semi-artificial inland waterways. Vessels of the type which ply such waters are less efficient mechanically than ocean shipping and Lakes carriers, and not unlikely are less so than water-level railways which parallel them. Such waterways are provided toll-free to users, who thus contribute nothing toward maintenance, construction costs or taxes upon the facilities provided for them. In Northern climates they cannot be used in the winter months.

B. The Great Lakes. Vessels using these waters are highly efficient from a standpoint of cost per ton, since they do not have to be built to withstand the tempests of the open sea. There is no interest or construction cost to bear for roadway, since that is provided by nature. This form of transport receives some subsidy in the form of dredging at ports, lighthouse service and the like. On the other hand, the fact that its roadway, provided by nature, happens to have escaped taxation, whereas that provided artificially by the railways is taxed, is purely arbitrary—the result of chance rather than logic or strict justice.

C. Ocean transport. Has the same characteristics in every respect as that on the Great Lakes, only that vessels in such service, since they must be built to withstand heavy seas, are much more costly.

Characteristics of Air Transport

4. Airplanes. Mechanical force must be exerted not only to propel them but also to keep them aloft. They receive subsidies by mail contracts which are costly to the government and also by having airports and beacons provided them at public expense. They fly over private property but pay neither its owners nor the government anything for the privilege.

From the above outline it appears that the railways are the only form of transport every factor in which must be provided by private enterprise; not only that, but every facility of which is a source of tax revenue. Viewed purely mechanically, it would appear that the railways have the advantage over every form of

The Nub of the Question

Railway transportation is provided without cost to the taxpayers. Moreover, it is one of the largest of taxpayers itself. Highway, inland waterway and air transport, on the other hand, cost the taxpayers upwards of a billion dollars annually.

To get a measure of the true cost of other forms of transportation which may be fairly compared with that of railroad service, the taxpayers' contribution to them must be added to the total paid by their patrons.



Inland Waterway Transportation, All Costs Considered, Is Much More Expensive Than That by Rail, Unless the Waterway Is Suited by Nature, Without Dredging, Dams or Locks, to the Navigation of Large Vessels

transport except that on the Great Lakes and the ocean. Naturally navigable waterways, however, have the great advantage of being level and of requiring no investment for roadway and no roadway maintenance expense. Many handicaps are, however, arbitrarily, and in large measure thoughtlessly, assigned to the railways by law and custom, which disadvantage them in comparison with their competitors far beyond the measure of economics. The socially minded and intelligent citizen, however, desirous of conserving the national wealth, will naturally endeavor to penetrate such artificialities; he will not wish to condemn a facility as uneconomic or obsolete when it is actually more efficient than some of its competitors which are being allowed to supplant it.

Let us see how the railway, even with all its handicaps, compares with the commercial motor vehicle. Probably the lowest-cost truck transportation which has ever come to notice was recently given wide publicity by the Virginia Railroad Employees and Taxpayers Association. The instance cited showed a cost of slightly more than one cent per ton per mile—but, achieving this low cost involved not only taking advantage of the subsidies and other perquisites which truck transportation enjoys, but also of restricting employees' salaries to "board and lodging wages" (i.e., actual cost of cheap food and shelter), and working them 18 hours daily. In spite of this desperate effort to lower costs, a figure of about one cent per ton per mile was the best that could be achieved—and this bed-rock cost is just about comparable to the *average* railroad rate, maintained after paying roadway taxes, interest and maintenance expenses from which the trucks are largely free, and with railroad wages per hour many times those meted out by these exemplary truck operators. In the light of this comparison, does it seem probable that the American people will save any money if they scrap their railways and turn to highway transport?



Actual Operating Costs per Ton per Mile of Long-Distance Truck Service, Without Including the Taxpayers' Contribution, Usually Are Much Higher Than the AVERAGE Selling Price of Railroad Service—Trucks Nevertheless Can Take High-Class Traffic from the Railways by Cutting Rates on It, Assuming No Responsibility for the Continuance of Low Rates on Bulk Commodities

Bus fares regularly quoted vary from one to two cents a mile per passenger. At the one cent rate a 30-passenger bus must carry approximately two-thirds of its capacity to make both ends meet, even with the favors in exemption from full taxation which have been mentioned. A ten-car train with seats for 760 passengers at a loading of two-thirds capacity, despite the handicaps to which railway transport is subjected, could be operated profitably at one-half cent per passenger per mile. The reason that such service is not regularly offered by the railways is that they cling to the old-fashioned notion of giving a complete transportation service in all weather and in places where less than the ideal volume of business is available. Thus, compared economically, can bus service be accepted as a complete substitute for trains?

The Pennsylvania Railroad not long ago drew attention to the fact that one day's traffic during the present depression on its Middle division in Pennsylvania alone would fill a highway across the state with two full lines of five-ton trucks. If this diversion of traffic should take place, the present highways would be inadequate. Who would build the additional necessary road mileage?

Would the truck operators? If they would not, then the burden would be upon the taxpayers. But why should they assume such a burden when facilities (i.e., the railways) already exist to handle the traffic at no cost whatever to taxpayers—in fact, providing a contribution to ease their present load of taxes?

As for waterway transport, the railways freely acknowledge the superiority for certain classes of traffic and in certain seasons of the waterways provided by nature, such as the Great Lakes, the open sea and the lower reaches of the Hudson.

To meet such competition

they can ask little more than regulation comparable to that to which they are subjected and the right, now denied them, to engage in such transport themselves.



Railways, the One Form of Transportation Which Yields, Instead of Consuming, Taxes—Available Every Day in the Year at a Cost to the Public Much Lower Than Any or All of Its Competitors Could Offer for Comparable Nation-Wide Service

Under such a regimen, traffic would divide itself economically between the two forms of transport. One might gain or lose at the expense of the other, but the public would certainly profit by reason of a choice made on purely economic—and not arbitrary or artificial—grounds.

With the improved inland waterways—those which are by nature nothing but a system of drainage and which for transport use require the expenditure of millions for dredging, dams and locks—the case is altered. Not one of these projects can be justified in economics, political honesty or conservative public policy.

Consider, for instance, the New York Barge Canal. This facility is costing New York taxpayers out-of-pocket upwards of \$10,000,000 a year, or more than \$3 for every ton of freight moved on the canal. For this expenditure, the taxpayers of the state could ship by rail all the freight now using the canal, pay the full rail rate, and be money ahead. This and other economic atrocities in waterway development which have been perpetrated on the American public are discussed in more detail elsewhere in this issue.

All Artificial Waterways Are Wasteful

Suffice it to say categorically that there is not a canal or canalized river system on the continent which is providing transport, all costs considered, as economically as it could be provided by rail. A nation's wealth is dissipated if it chooses less efficient methods of performing necessary services. America's wealth—not so boundless as we thought it was a few years ago—is being dissipated on inefficient inland waterways, needlessly adding to our already surplus transport plant; opening up no new territory; tapping no new natural resources.

Air transport is a new, and hence largely unknown quantity, and to dogmatize too minutely upon either its economics or engineering features would be unwise. One may, perhaps, venture to say, however, that it is no longer an infant industry, and, since it is a business which requires little capital to engage in, needs no elaborate paternalism to encourage it. There can be no question of its supreme economy in providing access to areas of very light traffic not accessible by natural waterway and not provided with highways or railways. Its speed likewise entitles it to some consideration in comparing it with the railways, although this may be largely offset by the greater dependability and safety of the railways.

The primary concern of the American people, however, is, or should be, not the merit or demerit of this or that form of transport for this or that particular job, but rather the maintenance of an adequate national system which will reasonably meet all requirements at the most economical cost. It is impossible to conceive of such a national system of transport which excludes the railways.

Transport, viewed nationally, must reach every habitable spot of the continent, and this requires the use of some form of highway transportation. But highway transportation, as we have already outlined, is far more costly over long distances than that by rail. Its legitimate economic field is in localized distribution and collection.

Waterway transport could not serve economically to sup-

plant the railways for long distance transportation since, as has been pointed out, the only waterways which can dispute the railways' economic superiority are the Great Lakes, the Ocean, the lower Hudson and kindred gifts of nature which require no expensive improvements to make them navigable.

Taxpayers Cannot Afford to Supplant Railways

The railways, even with the enormous development of highway and waterway transport, still move some 70 per cent of all freight, and the public still relies upon them largely for dependable long-distance passenger service. It appears beyond the range of possibility that the public can afford or would be foolhardy enough to tax itself as it would have to do to supplant the railways entirely with waterways and motor transport. Hence it follows that the railways, in the national interest, must be preserved.

They cannot be preserved, economically, however, if they are to be a mere "stand-by" facility—ready to be used only on rainy days when the airplanes cannot fly, in snowy weather when the highways are blocked, in the winter months when the Lakes, the St. Lawrence and the New York Barge Canal are frozen over, or when the Mississippi is too low or too high to float General Ashburn's government barges in safety. Each of the railways' competitors has its legitimate economic field, and they must be restricted to it at least to an extent that will prevent them from crippling the nation's main reliance for its transport task—the railways.

It is said that Thomas Jefferson at the time of the Louisiana purchase expressed the opinion that it would be a thousand years before the frontier of civilization would reach the Mississippi and, but for the railroad, he would probably have been correct. Water transport could not have opened up all arable land because it cannot be made to serve lofty areas. Canals can extend it somewhat, but they are costly. Several of the states about a century ago went bankrupt on canal construction and repudiated their debts. Highway transport could not have opened up the country as the railways did, even if motor vehicles had been available at that time, because highway transport is too expensive over long distances. The railways, which built the country into one great economic unit, are still providing the tie (low-cost, long distance transportation) which holds it together.

Rate Structure Important

To develop a great continental nation such as the United States, it has been essential to overcome the obstacles of distance to the fullest possible extent. That is, of course, the very purpose for which the railway network was developed. However, merely providing transportation facilities was only the beginning; a rate structure had to be developed to foster the basic purpose.

Rates had to be made to permit the nearby and the distant producer to compete in the same market. To do this, the "postage stamp" principle of rate making has been followed as far as practicable, whereby rates as nearly uniform as possible are made on commodities to all markets from every competitive source which has economical justification to reach it. Had this not been done, the country would not have developed on a

Wanted, a National Viewpoint

Each form of transportation has its proper sphere of usefulness to which it should, generally speaking, be restricted. The fact that its extension beyond this sphere may be a convenience to some interest or group does not justify such extension if the result is disadvantageous to the nation as a whole.

A continuance of present chaos in transportation would create a freight rate structure which would set up barriers to nation-wide trade quite as effective as would tariff walls around the states.

continental basis and industrial and agricultural activity would be concentrated into very limited areas instead of being widely diffused.

A continuance of such unregulated and subsidized competition in transport as now prevails would remake the economic map of the United States, dividing it up into small sections with local, instead of national interest. It would create a freight rate structure which would set up barriers to nation-wide trade quite as effectively as tariff barriers around the states. Does anyone desire this?

Do Western Producers Want to Lose Eastern Markets?

To take a concrete example: Potatoes come to the Atlantic Seaboard cities, from Upper New York State, New Jersey, Maryland, Virginia, Delaware, North Carolina, Maine, Michigan, Wisconsin, Minnesota, the Dakotas and Idaho. Potatoes are a very bulky article and have a low value per unit of weight, hence, freight charges are a major factor in determining markets. If potatoes from the nearest areas of production had any undue advantage in the matter of freight rates, no other states could market potatoes in the East, and the western potato growing areas serving eastern markets would be economically paralyzed. Rail rates have been established to give access to New York for potatoes from many states, and it is inevitable that the short-haul rates are fairly high on a per ton mile basis. Trucks take advantage of this condition to undercut the rate a little and take the business. The railroads could name potato rates remunerative to themselves so far below the trucking costs that the lost business would be regained, but these reduced rates, which could not be made effective for long haul traffic, would embargo distant producing centers and thereby *undevelop* the country.

Transportation is what the economist terms a "joint cost" operation, inasmuch as various services are produced simultaneously at indistinguishable costs. The

major expenses of transportation, whether by railway, tax-built highways, or tax-built waterways, are incurred regardless of whether a maximum or minimum quantity of the service is utilized and when any minimum unit of service is performed an additional potential, but unused, service is also produced. If this unused service can be put to use by selling it for anything at all, be it only one cent, it represents a gain of that much to the carrier. Such a fundamental condition, if unchecked by agreements by the competitors or regulation, encourages cut-throat competition which is equally destructive to the transportation industry itself and demoralizing to all users to whom reasonable stability and uniformity of rates is essential to orderly conduct of their businesses.

This fundamental "joint cost" characteristic of inland transportation makes unrestricted competition inevitably destructive. The ruinous effects are quite as serious to general business as to the carriers themselves. Transportation is a principal cost factor in all industrial activities and, with rates determined entirely by competition, the tariff discrimination obtained by the limited number of shippers who are in a position to benefit from cut-throat competition demoralizes all industry.

I. C. C. Formed to Regulate Transportation

It was to bring order out of such a chaotic situation that Congress first created the Interstate Commerce Commission and gradually strengthened its powers. The railroads are and must continue to be the main transport facility of the nation. Their collapse would carry American industry and American agriculture in its wake, and would through years of struggle entail the remaking of the economic, and perhaps the political, map of the country on a much less satisfactory basis than at present. The people must act quickly to assure the establishment of system in place of chaos; economy instead of wasteful duplication and excessive competition in transportation. Therein lies the only path to their future economic safety.

Competition Which Aids No One and Injures All

"A few weeks ago I walked down the street in Miami, Oklahoma, in the morning with the agent of the Frisco railroad at that point. He stopped and bought some grapes from his local grocer at 23 cents a basket and arranged to pick them up and take them home with him that evening. It so happened that I was with him in the evening when he stopped to get his grapes and the grocer, somewhat ruefully, informed him that they would cost him only 11 cents a basket. Delighted, of course, but amazed, the agent asked the reason and the grocer replied that before noon that day an independent truck had come into town with a load of grapes which were of inferior quality, so they were sold to one of the competitors of the grocer at a price that enabled the competitor to offer them at 16 cents.

"Almost immediately afterward another truck came in and unloaded another lot with another competitor and at a price that enabled them to be sold at 12 cents, so this grocer, who already had a supply, was compelled to reduce his price to 11 cents or be stuck with a highly perishable commodity. That first grocer had purchased those grapes to sell at 23 cents and there is a vivid example of what unregulated and unrestricted transportation can do to an individual business, and that performance is being repeated countless thousands of times every day in the trade territory with which each one of you is concerned.

"Out at Wichita, Kansas, last summer an unemployed man with a second-hand truck approached a local automobile dealer and solicited the opportunity to go to Detroit

and bring back a load of 4 automobiles. The dealer was skeptical and hesitant. He finally agreed to try out the plan when the trucker brought the price down to \$170 for the round trip. The trucker went to Detroit, returned with the cars and the dealer had a price advantage of approximately \$25 per car, which he attempted to utilize because business was stagnant and it was difficult to sell automobiles anyway. The immediate result was that the other dealers in town were compelled to resort to the same thing, and if they could not find another trucker with whom they could make a similar arrangement, they were compelled to acquire a second hand truck of their own, employ some driver and haul their own cars. The final result was within a period of a few days nobody enjoyed any advantage and for a period of several months, I was reliably informed, not a single automobile dealer in Wichita made his rent.

"The haul from Wichita to Detroit is approximately 1,000 miles in each direction. That price is less than 8½ cents a mile. The automobile people themselves say that you only get 4 miles to a gallon of gasoline for a truck of that kind. You know that in the case of the man who owned his own truck he was losing money in great lots and, in fact, eating up what little investment he may have had in his truck with the result that by the time his truck was worn out he was so flat broke he couldn't even make a down payment on another one."

From an address before the Traffic Club of St. Louis, by E. H. McReynolds, Director of Publicity and Advertising, Missouri Pacific Lines.

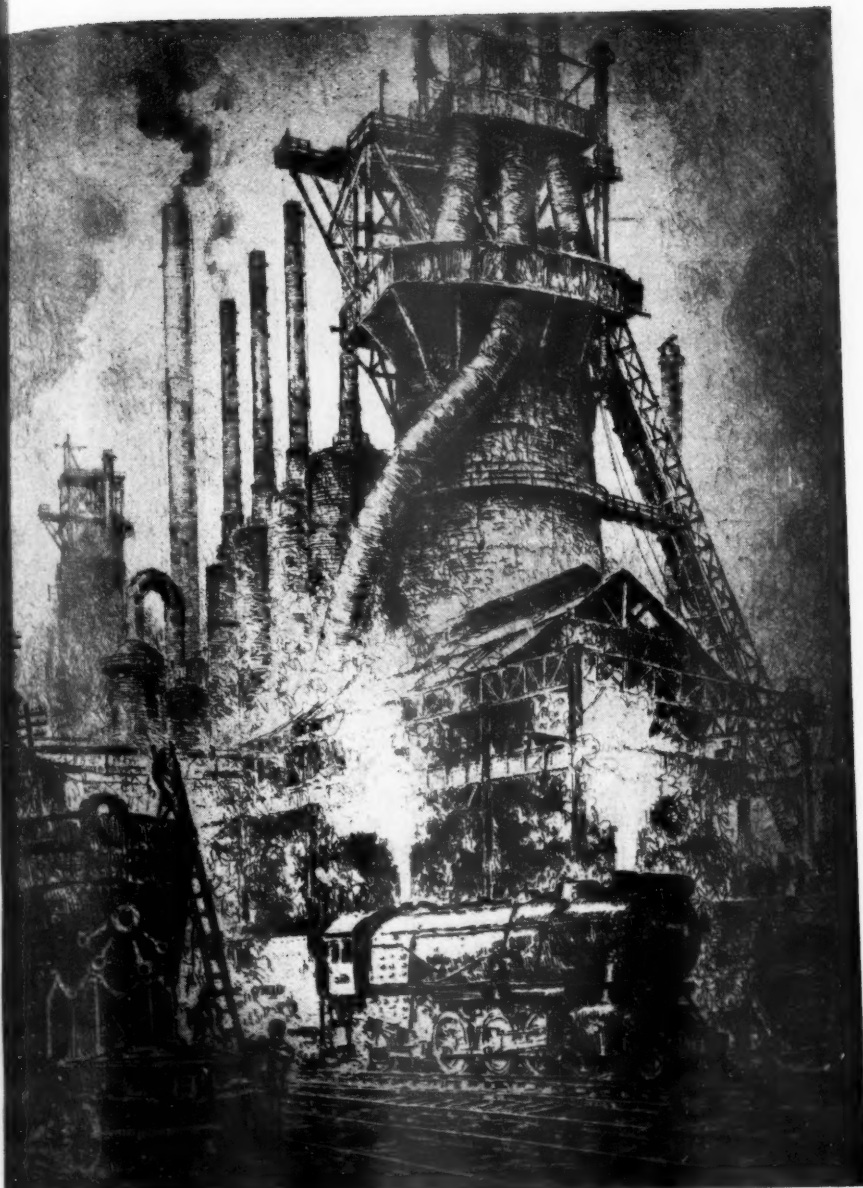
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THE RAILWAY SITUATION — ITS EFFECTS

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This Is What Has Happened to the Railways

Passenger traffic has fallen to the level of 1900, freight below that of 1910—For the first time in history the railways as a whole will have a deficit after interest

THE depression in the railway industry is now entering its thirteenth year. It did not begin, as it did in other industries, with the collapse of the stock market in 1929, but rather it dates back to September 1, 1920. On that date the war-time governmental guaranty of income ceased. Also at that time government shipping was disposed of at bargain prices, and there began the colossal outpouring of public funds for highway and water transport, which has even yet shown no sign of diminution. The law which provides for the regulation of the railroads has thus far failed to take into account the existence of this tax-aided competition, and the Interstate Commerce Commission, which is charged with the duty of regulation, has only lately begun to vary its policies to accord with the fact that the railways' monopoly of transport has vanished.

Twelve Years of Unsatisfactory Earnings

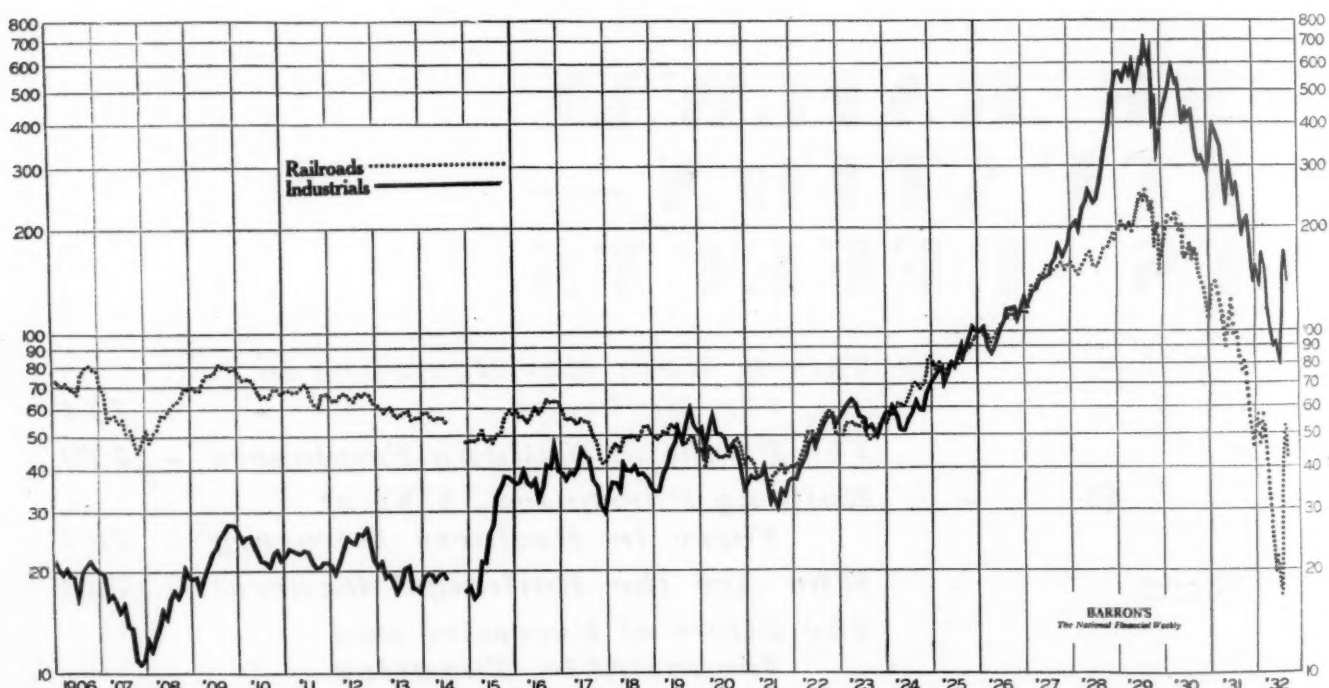
Striking evidence of the date of beginning of the railway depression and the course it since has taken is given in Chart I herewith. This chart is reproduced from Barron's Weekly and shows the course of railway stock prices as compared with those of industrial companies from 1906 down to the present. It will be noted that prior to 1919 railway stock prices were consistently higher than those of industrial companies. Then, in 1919, railway stocks fell below those of industrial shares

and moved along almost parallel with them until 1927. By this time several years of spending of public funds for competing transport began to bear fruit in actual diversion of a large volume of traffic from the railways, and, by threats of such diversion, to undermine the freight rate structure.

Railway Security Prices Lag in Boom

This statement is based upon no mere conjecture. Railroad management was efficient through the entire period shown on this chart. Its efficiency in the decade prior to this depression was everywhere acknowledged and acclaimed. How, then, account for the loss of prestige of railroad stocks in the midst of a boom in any other manner than by ascribing it to the known unfavorable influences—growing subsidies to competitors, and regulatory obstacles to the meeting of such competition?

The year 1929, a boom period for industry in general, was not such a year for the railways at all. Their operating revenues (i. e., gross earnings)—\$6,373,000,000—were actually less than in the preceding peak year, 1926, when they totaled \$6,508,000,000; their freight traffic was but slightly greater than in 1926, and their passenger business continued the steady decline which has occurred in each year since 1923. Further evidence of the existence of a depression in railways



Reproduced by courtesy of Barrons, the National Financial Weekly

CHART I—Average Prices of Railroad and Industrial Stocks Compared

Unit: Percentage of first week of 1929

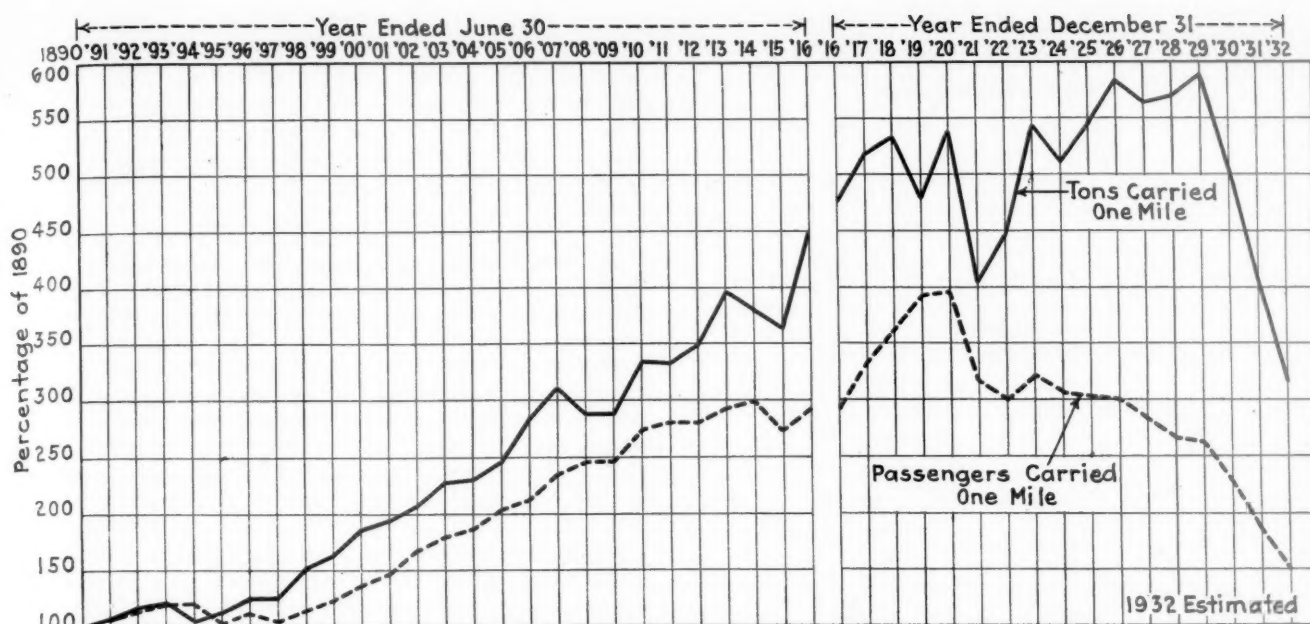


CHART II—The Course of Railway Traffic Since 1890, Shown in Percentages of the Volume Transported in That Year

while other industry was booming is shown by their earnings. In the peak railway year, 1926, they were slightly less than 5 per cent on investment and they were but 4.84 per cent on this investment in 1929. This fact is the complete answer to the opinion one occasionally hears to the effect that the depression in general business alone is responsible for the railroads' difficulties. The railroads have difficulties which antedate and lie deeper than the depression. The policies responsible for the railways' pre-depression troubles undoubtedly were factors in bringing on the depression itself, and the continuance of these policies is now delaying recovery.

What has happened to the railways? The answer to that question is set forth graphically in Charts II and III. Chart II shows over a period of 42 years the volume of business—measured in tons carried one mile and passengers carried one mile—expressed in percentages of the business done in 1890. For instance, the tons carried one mile in 1890 totaled 76,207 millions. That is taken as 100 per cent. In 1897 tons carried one mile summed up to 95,139 millions, which, calculation shows, is 25 per cent greater than the total attained in 1890. That is recorded on the chart, therefore, as 125, and so on.

Five Depressions Compared

The two lines—one showing freight and the other passengers—on this chart portray some interesting comparisons. Look at the depressions of 1893, 1907 and 1914, for instance. Compared with the depression of 1921 and the present one, they scarcely can be called depressions at all. Freight traffic following the 1893 business collapse fell only from the index of 123 to 105—a decline of less than 15 per cent. In 1907 the drop was from 310 to 287, or less than 9 per cent. From 1913 to 1915 the fall was from 396 to 363—less than 9 per cent. In 1921, however, the decline showed a new severity and reached 25 per cent. This year freight traffic has been averaging almost 50 per cent less than in the latest peak year, 1929. We have to go back to 1909 to find a year when business has been smaller. Freight car loadings for the first 42 weeks of the current year totaled 22,895,145, which was 47 per cent less than in the same period in 1929, and 28 per cent less than the loadings in the same weeks in the last great depression—1921.

Such an astounding shrinkage, combined with the knowledge that the state and local governments have been spending billions of public moneys on highways and waterways and the visual evidence of heavy traffic utilizing these new facilities—traffic which otherwise would have to move by rail—should convince anyone that there is more to the railroad depression than the general decline in business. Those things which are wrong with the railways aside from the depression do not have to await the end of the depression for their correction. They can be removed now. And if they are removed the railways will help bring general business out of the depression.

Travel Level Loses 32 Years

Let us turn now to the line on Chart II which shows passenger traffic. A steady annual rise is portrayed culminating in 1920, with but an inconsequential dip during the pre-war slump. Passenger traffic then took a sharp drop, recovered slightly in 1923; since which time it has gone down, down, down—to a level first attained back at the turn of the present century. The main cause of this decline, of course, has been the tremendous expansion in the use of private automobiles. H. E. Hale, the well-known consulting engineer of New York, estimates that the persons carried one mile in private automobiles rose from a little more than 50 billions in 1920 to over 400 billions in 1930—an expansion of 800 per cent in one decade! This gain in motor travel is at least 15 times the loss sustained in railroad passenger business.

Automobiles, Then Buses and Airplanes

The railroads simply cannot hope to meet a large share of the competition offered them by the private automobile. It is a machine which for certain classes of travel is superior to or cheaper than railroad service and the railroads must yield to it in such instances. There are, however, certain phases of travel where the railroads offer definite advantages over the private automobile and which traffic they might hope to hold. But, to make their problem more difficult, the same highways which were built for private automobiles have been made available to long-distance buses. Then, along came air transport, and friendly governments, local and national,

are giving it millions of public funds, enabling it thereby to make further inroads into railway traffic.

What Carloadings Show

Leaving the long-term trend of railway traffic, freight and passenger, the figures appearing in Table I show very clearly just what has happened to the railways since 1929. In the first 42 weeks of each year, revenue carloadings totaled more than 43 million in 1929, dropped to 38 million in 1930, dropped again to 31 million in 1931 and fell still further in 1932 to less than 23 million.

TABLE I
Revenue Carloadings—First 42 Weeks

Year	Number	Per cent decline below	
		Previous year	1929
1929	43,465,077	.....	.....
1930	38,194,580	12.1%	12.1%
1931	31,016,794	18.8%	28.6%
1932	22,895,145	26.2%	47.3%
Revenue Tons Carried—First 8 Months			
1929	1,581,121,000	.....	.....
1930	1,372,201,000	13.2%	13.2%
1931	1,086,306,000	20.8%	31.3%
1932	736,020,000	32.2%	53.4%
Revenue Ton-Miles—First 8 Months			
1929	294,414,239,000	.....	.....
1930	257,690,116,000	12.5%	12.5%
1931	212,123,757,000	17.7%	28.0%
1932	150,238,404,000	29.2%	49.0%
Revenue Passengers Carried—First 8 Months			
1929	520,350,000	.....	.....
1930	481,362,000	7.5%	7.5%
1931	410,662,000	14.7%	21.1%
1932	328,710,000	20.0%	36.8%
Revenue Passenger Miles—First 8 Months			
1929	21,189,341,000	.....	.....
1930	18,773,840,000	11.4%	11.4%
1931	15,345,751,000	18.3%	27.6%
1932	11,677,403,000	23.9%	44.9%

Considering these first 42 weeks of the respective years, carloadings dropped 12 per cent below 1929 in 1930, dropped 19 per cent below 1930 in 1931, and dropped 26 per cent below 1931 in 1932. The net result of these continuous declines was a reduction in carloadings, in the first 42 weeks of 1932, to a level, as noted previously, 47 per cent below the corresponding weeks in 1929.

Turning to Table II it appears that between 1929 and

TABLE II
Carloadings by Commodities—First 42 Weeks

Commodity	1929	1932	% decrease
Grain and grain products...	2,001,335	1,377,449	31.2%
Live stock	1,121,710	766,234	31.7%
Coal	7,205,796	4,093,181	43.2%
Coke	517,680	172,194	66.7%
Forest products	2,728,462	750,253	72.5%
Ore	2,052,380	184,120	91.0%
Merchandise, L. C. L.	10,750,439	7,458,762	30.6%
Miscellaneous	17,087,275	8,092,952	52.6%
Total	43,465,077	22,895,145	47.3%

1932 there have been reductions in carloadings amounting to 31 per cent for grain and grain products and for merchandise, l. c. l.; to 32 per cent for live stock; to 43 per cent for coal; to 53 per cent for miscellaneous commodities; to 67 per cent for coke; to 73 per cent for forest products; and to 91 per cent for ore.

Returning to Table I, which shows current (8-month) figures of railway revenue traffic, it is seen that from 1929 to 1932 the tonnage carried by the Class I railways has decreased 53 per cent, from 1,581 million tons to 736 million tons; revenue ton-mileage has declined 49 per cent, from 294 billion ton-miles to 150 billion ton-miles; the number of revenue passengers carried has fallen 37 per cent, from 520 million to 329 million; and the number of passengers carried one mile shows a reduction of 45 per cent, from 21 billion to less than 12 billion.

The Dollars and Cents of It

Turning from the contemplation of actual volume of traffic, let us consider the dollars and cents aspect of the situation, which is set forth graphically in Chart III. Here again 1890 totals are taken as 100 per cent. Operating revenues (totaling 1051 millions in 1890)—the money the railways receive for carrying passengers and freight—show a steady rise, as traffic increased, with only minor dips until 1920, when they reached a total of 6,310 millions. There was a recession in 1921 and 1922, and thereafter a remarkable evenness until 1929, since which the decline has been so great that we have to go back to 1915, when rates were much lower than at present, to find gross revenues so low.

The existence of a depression in railroading prior to

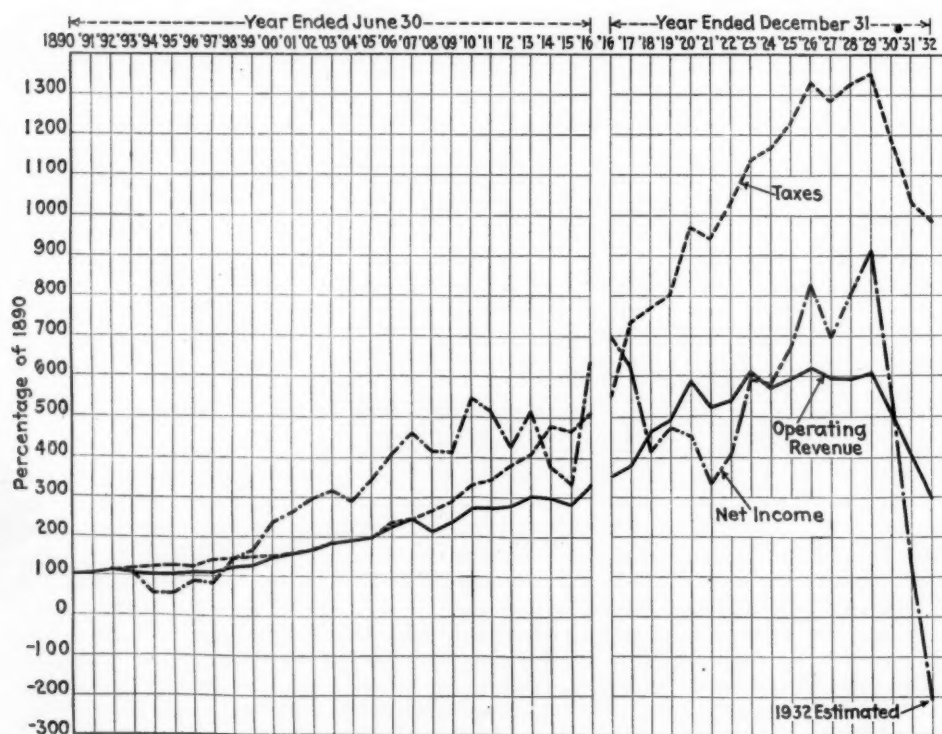


CHART III—The Course of Railroad Revenue, Taxes and Net Income for 42 Years
(Year 1890—100 Per Cent)

that in general business is clearly shown by the line portraying operating revenues. Follow it and note that, up to 1926, every peak was higher than the one which preceded it—that of 1910 was higher than that of 1907, the war period exceeded the 1913 peak, 1923 was a better year than 1920 and 1926 was better than 1923. But see what happened in 1929—here for the first time in history was a peak in the curve of railroad earnings which was lower than the one which preceded it.

The highest earnings the railroads achieved was in 1926, when the total was 6,508 millions; in 1929, the peak year for general business, the total was 6,373 millions. General business activity in 1929, according to the index of the Cleveland Trust Company, reached a height of approximately 13 per cent above normal, whereas in 1926 it was but 9 per cent above normal. And yet there are those who would tell us that the railroads prosper along with general business.

Railway Plant Cannot Be Closed Down

Operating revenues in 1932, it is estimated, will total something over three billion dollars, or about half of the 1929 showing. Some may wonder that the railroads should find a reduction of 50 per cent in the dollar volume of their business so difficult to cope with, when many businesses would be glad to have such a ratio to their 1929 trade. The difference is in the fact that the railroads' capital is largely fixed capital and not working capital, and that they must maintain service and therefore can never temporarily close down their plants. Their investment is high in proportion to their sales volume. The plant is there whether it is used or not. In industries which, on the contrary, have working capital large in proportion to the investment in plant the recession in prices accompanying a depression immediately reflects to the advantage of its working capital—increasing its purchasing power and giving the industry a fund on which to draw to tide it over the depression.

There are two other lines on Chart III. One of them shows net income—which is the amount left for the stockholders after all expenses of operation, taxes and bond interest have been met. It shows rather sharp fluctuation because when business falls off, operating expenses cannot as a rule be reduced in proportion, and bond interest and taxes are beyond control of management. Quite justly, then, in years of good business, the stockholder, who has to bear the brunt of the decline in bad years, gets his reward. It will be noted that this net income line, which also is based on that of 1890 as 100 per cent, consistently from the late 'Nineties for about 20 years hovered considerably above the line of operating revenues. The reason for this is to be found in the policy which the railroads pursued of reinvesting a large share of their profits in the property. This gave the stockholders an actual equity in the property far greater than the face value of the stock, and tended to enhance net income in the years when a fairly intensive use was made of the facilities provided by these re-invested profits.

This same situation shows itself again prior to the 1929 collapse. The railways in the decade ended in 1930 spent 7¼ billions in improving their property, only a little more than two billion of which was capitalized by the issue of new securities. The failure of traffic during the current depression to utilize the facilities so provided to anything approaching a reasonable intensity will result this year in a net deficit after fixed charges for the first time in history—estimated at about 200 millions. Even in the severely depressed years 1894 and 1895 the roads earned net income of over 60 millions.

The third line on the chart, that showing taxation, is

How End the Depression?

There are important factors contributing to the present low state of the railroad business which existed before the depression in general business, and which undoubtedly are making it worse. These factors can be corrected by our public men. If they were corrected, railroad traffic, earnings and employment would improve immediately without waiting for an increase in general business. Such an improvement on the railways, however, would immediately be reflected in better business for industry, farms and stores. Such action would be a sure step toward ending the general depression.

perhaps the most startling. It reveals the fact that while gross revenues in 1929 were approximately 600 per cent of those of 1890, taxes in that year were 1350 per cent of the 1890 total. The taxation curve followed that of earnings fairly closely up to 1907, when it swerved upward and left the earnings curve below. This upward swing did not assume alarming proportions, however, until the war years. Even this would not have been so bad, had the habit of governmental extravagance, acquired with the war, been broken when the war was over, but it was not. Public spending grew more and more—and a large part of it was due to the construction of transport facilities competitive with the railways. Railway taxes were increased to encourage their competitors to expand their activities—a policy which a noted economist has likened to requiring a condemned man to bear the expense of his own execution.

Chart IV shows the trend of the return earned on the investment in railway property from 1911 to date. This rate of return is calculated by taking net railway operating income (which is the sum left to the railways after all operating expenses and taxes have been paid but before the payment of interest or rent) and dividing it by the balance sheet showing of the investment in railway property. It will be noted that at no time since the war have earnings reached five per cent, whereas in 1916 they were almost 6 per cent—further evidence of the existence of a depressing influence since the war which was not present before. The sharp decline in 1918-20 will be noted, but that is only part of the picture. The railways in those years were operated directly by the federal government, which recognized its responsibility for low earnings during this period by recompensing railway owners so that; whereas in 1918 the railways actually earned only 3½ per cent on the investment, their owners received the equivalent of a return of 4.2 per cent in that year (shown by dotted line on chart), the same in 1919, and 2.8 per cent in 1920, in which latter year actual net railway operating income was only 0.08 per cent on the investment.

Is Government Responsible?

The government, to repeat, was responsible for the operation of the railways in that period and recognized its responsibility by recompensing railway owners in part at least for the failure of the properties under government management to earn a fair return.

Again leaving the long-time trend of railway earnings, gross and net, the figures appearing in Table III, covering the first nine months of the years 1929-1932 inclusive, show what has happened to the railways during the depression. In these months, railway freight revenues amounted to 3,623 million dollars in 1929. There were then successive declines to 3,108 million dollars in 1930,

TABLE III
Condensed Income Account—First 9 Months
(Figures are stated in millions)

Account	1929	1930	1931	1932	% decrease 1932 under 1929
Revenues:					
Freight	\$3,623	\$3,108	\$2,514	\$1,817	49.8%
Passenger	671	573	436	296	55.9%
Mail	111	82	78	72	35.1%
Express	108	87	64	41	62.0%
Other	268	233	187	137	48.9%
Total	4,781	4,083	3,279	2,363	50.6%
Expenses:					
Maintenance of way and structures	1,657	562	428	278	57.7%
Maintenance of equipment	908	791	641	472	48.0%
Traffic	98	98	90	74	24.5%
Transportation	1,577	1,425	1,199	888	43.7%
Other	179	177	166	139	22.3%
Total	3,419	3,053	2,524	1,851	45.9%
Net revenue from railway operations	1,362	1,030	754	512	62.4%
Taxes	309	276	246	221	28.5%
Rentals *	90	93	99	89	1.1%
Net railway operating income	963	661	409	202	79.0%

* Includes uncollectible railway revenues.

to 2,514 million dollars in 1931, and to 1,817 million dollars in 1932, this latter figure representing a reduction of 50 per cent below 1929. Similarly, from 1929 to 1932 mail revenues declined 35 per cent, from \$111,000,000 to \$72,000,000; miscellaneous revenues fell 49 per cent, from \$268,000,000 to \$137,000,000; passenger revenues decreased 56 per cent, from \$671,000,000 to \$296,000,000; and express revenues dropped 62 per cent, from \$108,000,000 to \$41,000,000. The combined result of all these reductions was a decrease of 51 per cent in railway gross earnings, from \$4,781,000,000 in the first nine months of 1929 to \$2,363,000,000 in the same months this year.

Almost every possible economy has been made in railway operating expenses during this period, but it has been impossible to match, dollar for dollar, reductions in gross earnings with reductions in expenses. For the first nine months of the respective years, operating expenses in 1932 have been reduced 46 per cent below 1929, from \$3,419,000,000 to \$1,851,000,000. The principal items in this aggregate reduction have been decreases of 44 per cent in transportation expenses, from \$1,577,000,000 to \$888,000,000; of 48 per cent in expenditures for maintenance of equipment, from \$908,000,000 to \$472,000,000; and of 58 per cent in expenditures for maintenance of way and structures, from \$657,000,000 to \$278,000,000.

These two latter reductions are worthy of special notice as they represent, in large measure, "robbery" of the railway physical plant made necessary in order to avoid bankruptcy. Total maintenance expenditures in the first nine months of 1929 amounted to \$1,565,000,000. In the first nine months of 1932 maintenance expenditures

totaled \$750,000,000, a reduction of \$815,000,000. If this same relationship continues, maintenance expenditures for the full year 1932 will fall more than a billion dollars below those made in 1929. This most substantial reduction, following similar (though somewhat smaller) maintenance reductions in 1930 and 1931, presents a very grave problem for the future. While these reductions have been essential to avoid receiverships, there is a very definite limit to the degree of starvation which railway physical property can suffer without the very definite threat of impairment of service. Furthermore, this deferred maintenance will have to be made up in future, and it is always more expensive to catch up than to keep up.

As a net result of these reductions of 51 per cent in railway gross earnings and of 46 per cent in operating expenses, the net railway operating income of the Class I lines—their return upon their property investment—declined 79 per cent, from \$963,000,000 in the first nine months of 1929 to \$202,000,000 in the same months of 1932. It is highly significant to note that the reduction made in maintenance expenses between the first nine months of 1929 and of 1932 was more than four times as great as total net earnings in these nine months of 1932 and that, had these maintenance reductions not been made, the Class I railways would have incurred a net operating deficit of more than \$600,000,000 in the first three-quarters of the current year.

Now it is perfectly evident that the railways have been disadvantaged by government policy or lack of policy since federal operation just as they were during that period. The federal and state policies which have resulted in providing inland waterways at the sole expense of the taxpayers, highways largely at public expense—these and regulation which prevents the railways effectively from meeting this competition—all this is quite as detrimental to railway earnings as were the rate and wage policies followed under the Railroad Administration in the war years. If there be some slight difference in degree, there is no difference in kind.

There is, however, an important difference in the treatment accorded the railways—the government recognized its responsibility in the war years and to some degree recompensed railway owners for the damage it was doing. In this year of grace, 1932, however, such responsibility has not yet been recognized. Loans are made through the Reconstruction Finance Corporation, where ample security can be given, for meeting maturities, taxes and interest—but this is not compensation. An injustice is not removed merely by lending money to the victim. The loan in this case, of course, is necessary to protect the insurance companies, savings banks and the national financial structure, but quite as important as that is the discovery and removal of the underlying causes which have made these loans necessary.

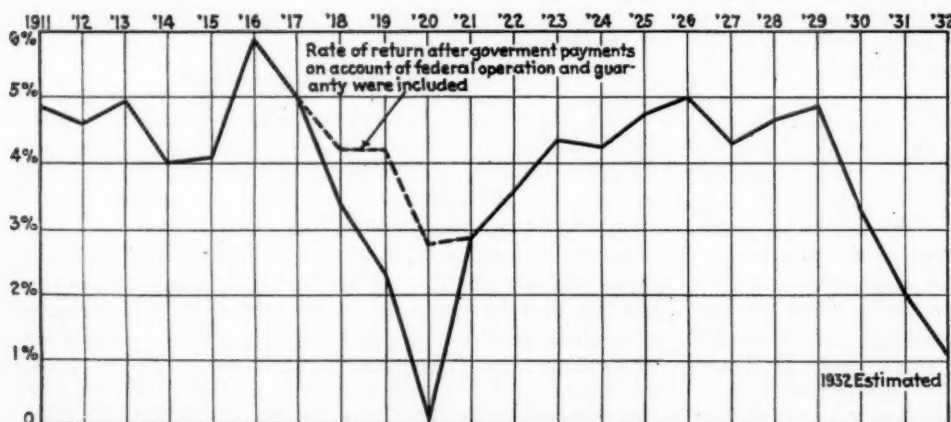


Chart IV—The Rate of Return Earned on the Investment in Railway Property



H. Armstrong Roberts

The Plight of Railway Employees



H. Armstrong Roberts

Inroads of subsidized and unregulated carriers, bringing also the competition of low-paid labor, threaten employment stability and living standards of railway workers

THERE were more railway employees in the United States in 1901 than in 1932. For the first nine months of the current year Class I railways, which earn about 97 per cent of total railway revenues, reported an average of 1,060,317 employees, whereas the average number of railway employees in 1901 was 1,071,169. Prior to 1920, as the accompanying chart shows, the average number of railway employees tended to increase. Since the 1920 peak of 2,075,886, however, the trend has been persistently downward.

Such is the declining state of railway employment with its ramifications extending to drastic adjustments in the lives of thousands of workers who, having devoted their best years to railway service, now find themselves either without employment or reduced to the positions which they held twenty-five years ago. There is, for example, the case of a train service employee on a large eastern railroad who entered the service 28 years ago as a brakeman and who was promoted to conductor after six years. With the subsequent 22 years of service as a conductor to his credit he has, during the current year, been reduced in rank to brakeman, the position he held in 1910; and if one more train is discontinued on his road he will, under the seniority rules, be among the next crew to be laid off.

A similar picture of the state of railway employment in New Orleans, La., was painted recently by E. J. Foster, assistant cashier of the Texas Pacific-Missouri Pacific Terminal, in his protest against subsidized transportation agencies to the congressional committee investigating government competition with business. In 1929, Mr. Foster testified, the Texas Pacific-Missouri Pacific Terminal employed 1,176 persons, while in 1932 there were 589 employees, a reduc-

tion of 50 per cent. In 1929, the Texas & New Orleans employed 2,029 persons, while at present it has 1,400 employees, a reduction of 31 per cent. Likewise, in 1929, the Illinois Central, in New Orleans, employed 2,405 persons, whereas at the time of Mr. Foster's presentation it had 1,410 workers there, a reduction of 40 per cent.

"The Harahan yards and shops operated by the Illinois Central," Mr. Foster continued, "employed in 1929 approximately 700 men—switch enginemen, car repairers, inspectors, switchmen, yard clerks, watchmen, etc. Today these yards and shops are completely closed. Clerical forces and freight handlers at local freight stations have been cut 60 per cent; bridge and maintenance of way crews have also been cut 60 per cent. The clerical forces at Stuyvesant docks have been reduced 90 per cent. The transfer boats operated by the Texas Pacific-Missouri Pacific Terminal, which in 1929 required three shifts on each of two boats, are now reduced to two shifts on one boat, being a reduction of 67 per cent."

Whole Grades of Workers Wiped Out

Pointing out that the seniority of some of the men involved in the foregoing was 22 years, Mr. Foster turned his attention to "the insecure position" in which

those who still hold their jobs have been placed, as he put it, "by these unfair and arbitrary practices inflicted upon us by a government which taxes us to furnish the subsidies for our competitors in transportation."

"The entire seniority list of locomotive firemen has been wiped out," he said, "and their services are now being performed by locomotive engineers, all of whom have from 15 to 24 years' seniority. This means that men who have been locomotive engineers for periods as much as 15

There were more railway employees in 1901 than in 1932.

Whole grades of railway workers have, under the seniority rules, been wiped out—firemen have been replaced by engineers reduced in rank and conductors have similarly displaced entire rosters of brakemen.

The checked rate of traffic growth has been the principal cause of declining employment since 1920. Subsidized competition on the highways and waterways has had an important influence in checking the growth of railway traffic.

Railway employees are being subjected to the labor competition of lower-paid waterway workers and of highway transport employees, who work for "board and lodging" wages.

years are now firing the engines which they formerly piloted. Another phase of this situation is that because of their age these men, now reduced to occupations of hard physical labor, are unable to do the work for the hours of a regular run. This condition is emphasized to such an extent that there are cases where two firemen are permitted on a single train, the money for the run being divided between them. There is a locomotive engineer present at this hearing who has 32 years of seniority, 28 of which have been spent as an engineer, and who, by the removal of another train will be back on the extra board and of four more trains will be back on the firemen's list.

"These conditions are equally true for the conductors. I know of an instance which is typical where a conductor on a regular run with 28 years of seniority is now returned to the rank of brakeman."

The Railroad Commission of California recently completed an investigation of the operations of all transportation agencies doing business in that state. In addition to other comment on the effects of unrestricted highway competition on the railways, this commission in Appendix IX of its report, dated October 10, (Decision No. 25,243—Case No. 3154) gives typical examples of recent declines in railway employment and payrolls, as "illustrative of similar conditions prevailing on other railroads."

"The president of the Northwestern Pacific Railroad," it says, "stated that the average number of employees in his company in 1921 was 2,255 and in 1931, 1,584."

"The following statement shows the total payroll of the Atchison, Topeka & Santa Fe Railway Company (Coast Lines), the station employees' payroll, agency stations maintained, and the total number of employees for the years 1927 to 1931, inclusive:

Year	Station Employees' Payroll	Total Payroll	Agency Stations	Total No. Employees
1927	\$198,066.21	\$1,745,042.49	140	13,023
1928	198,433.10	1,674,333.41	138	11,606
1929	201,046.25	1,664,389.02	138	11,548
1930	183,254.89	1,370,731.71	133	9,310
1931	159,042.57	1,178,393.30	127	8,258

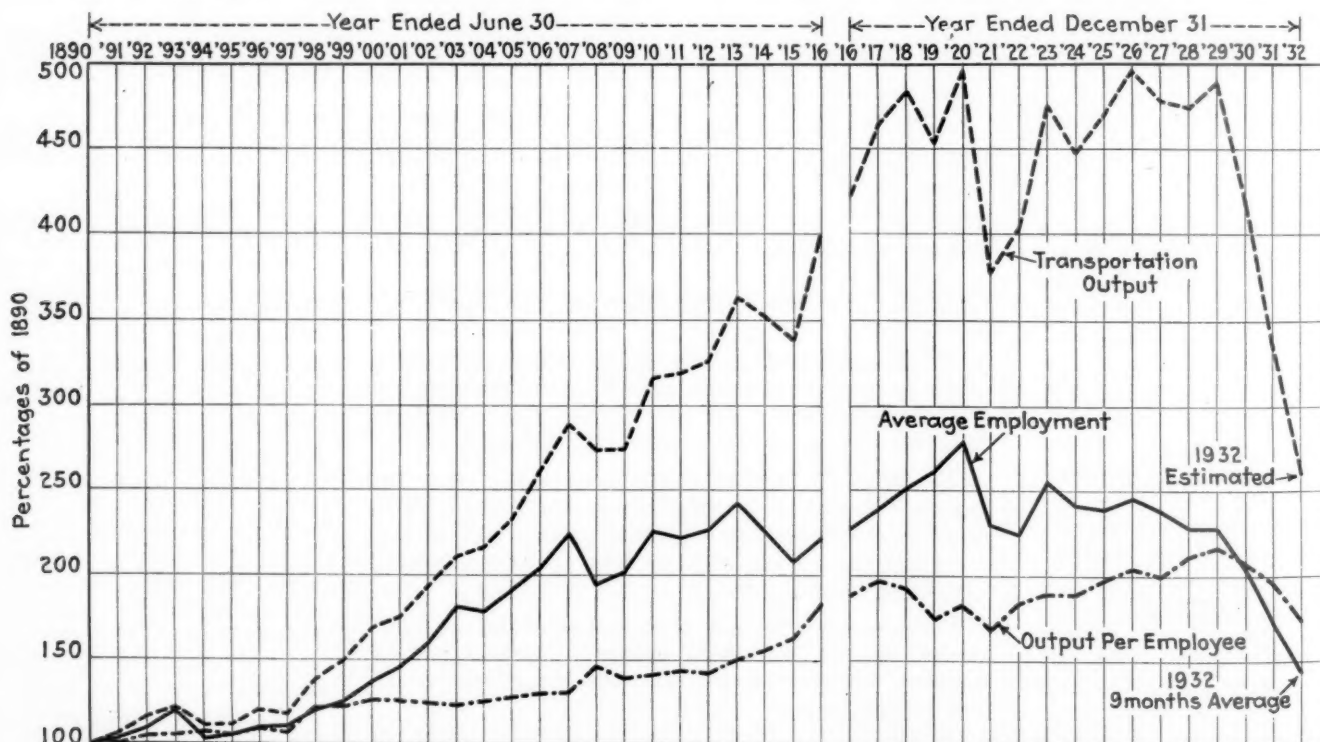
Table I shows by general classes the average number

of employees of the Class I railways in the first nine months of the years 1929-1932 inclusive. From 1929 to 1932 the number of executives, officials and staff assistants has been reduced from 16,966 to 13,796; the number of professional, clerical and general employees from 270 thousand to 189 thousand; the number of employees in the maintenance of way department from 414 thousand to 220 thousand; the number of employees in the maintenance of equipment and the stores departments from 456 thousand to 285 thousand; transporta-

TABLE I Average Number of Railway Employees by Classes (First 9 months, 1929-1932)				
Class	1929	1930	1931	1932
Executives, officials and staff assistants	16,966	16,747	15,619	13,796
Professional, clerical and general	270,203	257,919	227,083	188,569
Maintenance of way and structures	414,219	365,040	287,678	219,855
Maintenance of equipment and stores	456,242	415,541	353,476	285,040
Transportation (other than train, engine and yard)	195,896	183,564	162,016	135,985
Transportation (yardmasters, switch tenders and hostlers)	21,795	20,620	18,004	14,416
Transportation (train and engine service)	313,329	287,494	248,084	202,656
Total	1,688,650	1,546,925	1,311,960	1,060,317

tion employees, other than train, engine and yard, from 196 thousand to 136 thousand; yardmasters, switch tenders, etc., from 21,795 to 14,416; and train and engine service employees from 313 thousand to 203 thousand.

Table II shows for the years 1929-1932 the number of railway employees in certain specified states in which a special analysis of rail employment has been made. Some of these figures are incomplete, particularly those for Tennessee in which state all companies did not furnish reports. The figures for 1932 are estimated on the basis of the reduction in railroad employment reported for the country generally. These figures are of value in showing both the local importance of the railways as employers and in indicating the effect upon individual states of reduced railway employment. While detailed figures for all states are not available, the figures



The Trend of Railway Employment—Its Relation to Traffic and Transportation Output Per Employee

"Board and Lodging" Truck Wages Threaten Standards of All Transport Labor

In one of the Northern States, recently, two brothers were discovered who were regularly supplying small merchants and fruit stands with Florida oranges and grapefruit at prices which allowed their customers to undersell even the chain stores, despite the latter's immense advantages in large scale purchasing. . . .

The brothers are elderly men, and physically incapable, themselves, of driving trucks for long distances and long hours. They operate a small gasoline station which enables them to purchase fuel at wholesale. Earlier in life they had had some experience in the retail fruit business. They were well aware, also, of the cheapness of used trucks and the existence of the great army of the unemployed. In these factors they believed they sensed an opportunity.

Accordingly the brothers purchased, for very little money, two second-hand trucks, one of 2½ and the other of 3½ tons capacity. To strengthen these vehicles for the extremely heavy overloads they expected to haul, they fitted each with an extra pair of wheels.

Their town is located in a farming section. In the neighborhood are many young farmhands out of work and with no prospects of any. Numbers of them, however, can drive cars and hold drivers' licenses. The distress of agricultural prostration has supplied the brothers with their most important resource, the ability to utilize destitute labor.

It is their practice to engage, as drivers of their trucks, young farm boys who are willing to make the journey for no money wages at all, merely meals and lodging on the way and the supposed opportunity to see something of Florida and the South. One of the brothers accompanies each truck, but does little or no driving. The round-trip journey is 2,400 miles. It is made in five days, or an average of 480 miles per day. This is accomplished by continuous driving from three o'clock in the morning to nine o'clock at night, with the boy at the wheel practically all of the time.

In order to avoid the payment of gasoline taxes in the Southern States, the brothers carry sufficient gasoline with them for the round trip. To make this possible, they attached drums permanently to the truck bodies so as to form large supplementary fuel tanks and thus provide a sufficient supply for the entire journey, going and coming.

The 2½-ton truck is loaded with six tons of oranges and grapefruit. The 3½-ton truck carries eight tons. The trucks are operated through eight states, but bear the license plates of only one.

A motor expert checked all the items of cost in this extraordinary business. He found an estimated cost of not over 8 cents per mile was correct, including depreciation and an allowance which the brothers made of \$20 each per week for their own wages.

No doubt this is cheap transportation, but is it the sort of business the American public would like to see encouraged?

What can be said of the supposed American standards of living, and of the dignity of American labor, when a business depends for its profit upon the ability to hire young men for board and lodging wages and then work them eighteen hours a day at the trying, nerve-racking and dangerous trade of driving a greatly overloaded truck at high speeds? . . .

Is it just, or in the public interest, that established merchants, selling fruit carried to market by agencies of transportation which pay fair wages and work their employes only reasonable hours, should be subject to competition based on the employment of destitute labor in transportation service?

Is it just, or in the public interest, that railroad employees, or the railroads themselves, should be exposed to such competition? . . .

—From a circular issued by the Railway Employees and Taxpayers Association of Virginia.

for the 17 states included in Table II are typical of the losses of railroad jobs which have occurred in every state in the country.

Employment Trend Downward Since 1920

From these examples of the plight of railway employees in different sections of the country it might be well to turn to a consideration of forces which have caused railway employment to decline during the past

TABLE II
Number of Railway Employees in Various States

State	1929	1932
Arkansas	18,812	11,814
Colorado	17,624	11,068
Illinois	140,226	88,062
Iowa	41,398	25,998
Kansas	41,274	25,920
Kentucky	36,805	23,114
Louisiana	20,457	12,847
Minnesota	42,959	26,978
Mississippi	15,347	9,638
Missouri	53,923	33,864
Nebraska	26,597	16,703
North Dakota	8,137	5,110
Oklahoma	17,024	10,691
South Dakota	6,554	4,116
Tennessee	21,513	13,510
Texas	73,494	46,154
Wisconsin	37,112	23,306

12 years in striking contrast to the general tendency of the number of employees to increase which prevailed prior to 1920. These tendencies are reflected in the accompanying chart, one curve of which shows the number of railway employees for each of the past 42 years, expressed in percentages of 1890. For example, there was in 1890 an average of 749,301 railway employees; this is the 100 per cent or base figure of the chart. In 1900 there was an average of 1,017,653 employees, or

36 per cent more than the 1890 figures of 749,301; the index number for 1900, therefore, becomes 136 per cent. Likewise in 1920 there was an average of 2,075,886 railway employees, or 277 per cent of the basic 1890 figure.

The railways sell transportation service and their output is measured in ton-miles and passenger-miles—a ton-mile of output is that transportation service which is performed by hauling one ton of freight one mile, while a railway produces a passenger-mile when it carries one passenger one mile. The familiar statistical method employed to express in one figure the total output of transportation is to multiply the passenger-miles by three, thus placing them on a comparable basis with ton-miles, and adding the result to the ton-miles, which gives a new measure known as "traffic units" which reflect the volume of railroad service in its entirety.

Railway output has been computed in this manner for each year since 1890 and the resulting figures are plotted on the accompanying chart in percentages of the 1890 base which represents 100 per cent. Next, the total output of these traffic units for each year was divided by the average number of employees in that year to obtain the transportation output per employee. These latter figures, expressed also in percentages of 1890, became the basis of the third curve on the chart.

What do these data reveal as to the causes of the marked reversal of the trend in railway employment? The large investments made within recent years in labor-saving equipment and machinery, and the improvements effected in operation, have, of course, tended to reduce the number of employees required to produce a given

amount of transportation service, but this condition existed prior to 1920, when employment was constantly increasing. Plainly, therefore, either average transportation output per employee has increased much more rapidly since 1920 than before, or there has been some other important cause of the decline in railway employment within recent years.

The eight-hour working day was substituted for the ten-hour day generally when the railroads were under government operation. In order therefore to locate the cause or the causes of the change in the trend of railway employment it is necessary to compare developments during period when the ten-hour day was in effect with those which have occurred since the eight-hour day was adopted. Also, because the abnormal conditions of the war period tended to distort the figures, it is desirable to eliminate that period from the calculations. Developments during the ten-year periods 1897 to 1906 and 1907 to 1916 on the one hand should, therefore, be fairly comparable with those during the past ten-year period, 1923 to 1932. Prior to 1916 the fiscal year of the railways ended June 30 and dates given up to that time are for the twelve months ending June 30 of the years shown.

Developments During the Decade, 1897-1906

In 1897 the railways produced 95,139 million net ton-miles of freight service and 12,257 million passenger-miles of passenger service, or 131,910 million traffic units (passenger-miles times three plus ton-miles). This latter was 18 per cent greater than the 1890 output. The average number of railway employees in 1897 was 823,476, or 110 per cent of the 1890 base, and the 1897 output per employee was 160,187 traffic units, an increase of seven per cent over 1890. Thus for 1897 the index numbers on the chart are: Total transportation output, 118 per cent; average number of employees, 110 per cent; traffic units per employee, 107 per cent.

By 1906 when the total transportation output was 291,379 million traffic units the index number for this item rose to 261 per cent; the average number of employees had increased to 1,521,355 (index number, 203 per cent) while the index number for output per employee was 128 per cent, the output being 191,526 traffic units. Thus in the ten-year period the total transportation output of the railways increased 121 per cent; the average number of employees increased 85 per cent; and traffic units per employee increased 20 per cent.

Traffic Growth Offset Marked Technological Improvements Between 1907 and 1916

The 1907 index numbers as plotted on the chart are as follows: Transportation output, 286 per cent; average number of employees, 223 per cent; traffic units per employee, 128 per cent. The next ten-year period—up to the year ending June 30, 1916, the last railway fiscal period which does not correspond to the calendar year—saw a marked rise in output per employee. At the close of this decade the index for that item was 181 per cent, an increase of 41 per cent. The index number for total transportation output had meanwhile risen from 286 per cent in 1907 to 399 per cent in 1916, reflecting a growth of 40 per cent in traffic. Thus despite the marked technological improvements the growth of traffic virtually neutralized the threat of any resulting "technological unemployment," for the average number of employees decreased but slightly, or from a 1907 figure of 1,672,074 to 1,654,075 for the year ending June 30, 1916; and for the year ending December 31, 1916, the average number of employees was 1,700,814.

It is evident therefore that while in each of these two

ten-year periods and in the twenty years, 1897 to 1916, as a whole, the progress toward more efficient operation undoubtedly closed the railroad field to many new recruits, the growth of traffic was more than sufficient to prevent reductions in the total number of railway employees. For the year ending June 30, 1916, the total transportation output of the railways was 238 per cent greater than in 1897; average employment was 101 per cent greater, and output per employee was 68 per cent greater.

Effects of Checked Rate of Traffic Growth

What has happened during the past ten years? In 1923 the railways produced 531,138 million traffic units, the index number being 475 per cent. The index of average employment was 254 per cent—1,902,222 being employed—and output per employee was 279,220 traffic units (index, 187 per cent). By 1932 the index of total output had fallen to 260 per cent; that of average employment to 142 per cent; and that of output per employee to 184 per cent. In contrast therefore to the growth of 121 per cent in traffic in the decade, 1897-1906, and the rise of 40 per cent between 1907 and 1916 the 1932 traffic will be only approximately 55 per cent of the 1923 output, or less than that of any year since 1906. Thus between 1923 and 1932 average employment has declined 44 per cent or slightly less than the relative traffic loss and at the same time the output per employee, having reached a peak of 320,939 traffic units in 1929, will for 1932 show a drop to approximately 273,729 or a decline of two per cent as compared with 1923. It would seem therefore that while during the past decade technological improvements have displaced thousands of railway workers the recent drastic declines in railway employment are due less to this factor than to losses in traffic. Objection might be raised on the ground that the present depression is unprecedented in its severity and extent and thus statistics of the past three years do not form a valid basis for comparisons. In such a case let the seven-year periods 1911-1917 and 1923-1929 be compared. Between 1911 and 1917 total transportation output increased 46.7 per cent; average employment increased 6.9 per cent and output per employee 37.2 per cent. Between 1923 and 1929 transportation output increased 2.4 per cent; average employment decreased 10.9 per cent; and output per employee increased 14.9 per cent. Here is plainly seen the effects of the checked rate of traffic growth on employment. If instead of the actual 2.4 per cent increase in transportation output between 1923 and 1929 there had been the 46.7 per cent growth experienced in the 1911-1917 period, the 1929 output would have totaled 779,179 million traffic units; actually it was 543,684 million. Assuming that the 1929 output per employee remained the same—320,939 traffic units—the hypothetical 779,179 million traffic units would have involved the employment of 2,427,810 as against the actual employment in 1929 of only 1,694,042.

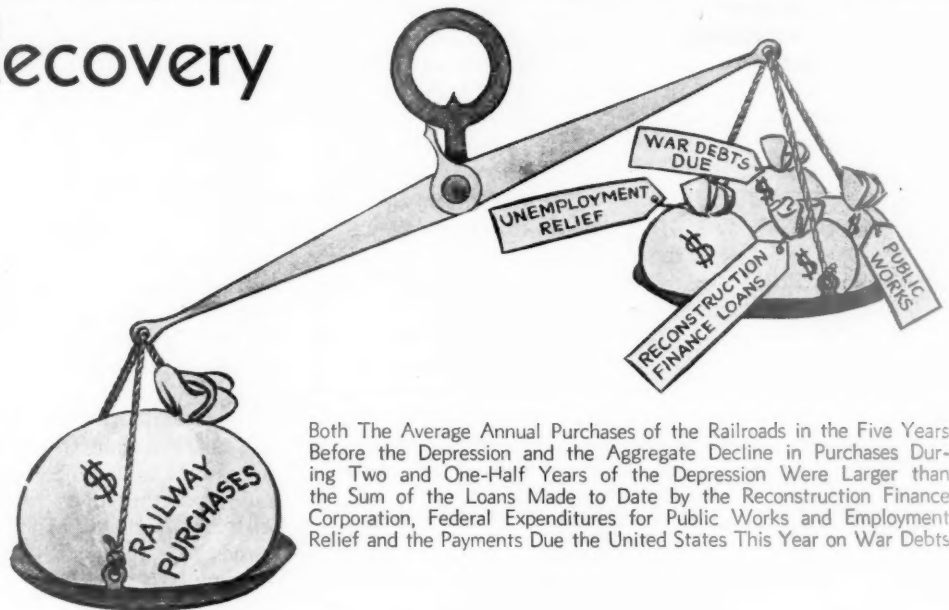
Employees Alert To Defend Their Jobs

This failure of railway traffic in recent years to maintain the rate of growth which was regarded as normal in pre-war times is due in large measure to the competition of unregulated and subsidized carriers on the highways and waterways. Railway employees are now awake to this situation and are on the alert to defend their jobs; they are finding sympathetic allies in taxpayers, who are tired of paying a portion of favored shippers' freight bills, in their endeavors to foster legis-

(Continued on page 790)

Railway Purchases—A Vital Force in Business Recovery

Disastrous effects of reductions in buying power throw new light on importance of railroads to public welfare



Both The Average Annual Purchases of the Railroads in the Five Years Before the Depression and the Aggregate Decline in Purchases During Two and One-Half Years of the Depression Were Larger than the Sum of the Loans Made to Date by the Reconstruction Finance Corporation, Federal Expenditures for Public Works and Employment Relief and the Payments Due the United States This Year on War Debts

THE American people are making a new and important discovery about railroads—the discovery that railroads are not only large tax-payers, large employers of labor, large sources of investment for savings banks, insurance companies, educational institutions, trusts and individuals, but also large consumers of the products of American industry, business and agriculture. They are discovering that railway buying power is so important that when it is allowed to decline, as it has declined in the past three years, thousands of factories are compelled to curtail or cease operations and hundreds of thousands of men and women in hundreds of cities and towns are thrown out of work.

Mount Vernon, Ill., is neither a railroad nor an industrial center, but a typical American town of 15,000 people. The principal industry is a \$5,000,000 factory that builds cars for railroads. This factory pays \$50,000 taxes per year to the community and normally pays \$1,250,000 per year to 1,500 employees. It now employs only 110 men and is, this year, spending only \$140,000 for wages because the railroads have not been able to buy cars.

In Bettendorf, Iowa, the largest industry, an \$8,000,000 factory which spends \$84,000 per year in taxes, has

for the same reason, been compelled to reduce its employment from 2,200 to 20 persons, and its pay-roll from \$60,000 per week to \$1,520. For similar reasons, the dominant industry in St. Charles, Mo., is employing only 95 men today instead of 559. Families are destitute in these communities and every shop-keeper, home, church and neighboring farm has felt adversity; yet, these are only examples of comparable conditions in hundreds of other communities—East, West and South—which have been caused by reductions in railway purchases.

During the past year, one of the country's largest railroads applied to the Reconstruction Finance Corporation for money with which to carry on a construction project involving the expenditure of several million dollars. In support of its application, it traced back to their sources the various materials that would enter into the work, and found that this one project would provide employment in no less than 38 different states, with a million man-hours of work or more in each of several states more than a thousand miles from the site of the project itself.

What the Railroads Buy

People make the mistake about railway buying in assuming that, having once been built, railroads cease to be of significance as buyers, overlooking the fact that railroads are constantly undergoing repair and rebuilding and constantly using supplies for their operation. The magnitude of these purchases is challenging in good times, but commands special attention when the country is struggling to extricate itself from the throes of the depression.

During the five years ending with 1929, the Class I railroads, which operate more than 95 per cent of the mileage in the country, expended \$6,947,000,000 in the markets of the country for fuel and materials and supplies not counting locomotives and cars and part of the supplies for construction work. This is an average annual expenditure of \$1,389,000,000, consisting of \$329,374,000 for coal from bituminous mines, \$9,485,000 for coal from anthracite mines and \$82,380,000 for fuel oil; \$170,134,000 for ties, timber, lumber and other forest

Railway Purchases

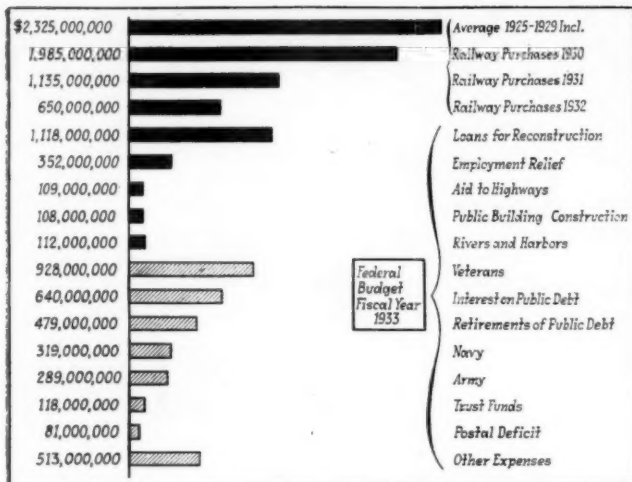
In the five years previous to 1930, railway purchases averaged over two billion dollars a year.

In the past three years, reductions in these purchases have amounted to almost \$3,000,000,000.

The decline in railway purchases is greater than all the loans and appropriations made by the federal government for public works and relief.

It has brought distress to hundreds of towns and thrown hundreds of thousands of workers out of employment. Its disastrous effects have been felt in every state of the Union.

The restoration of railway purchasing is indispensable to business recovery.



Total Railway Purchases of Fuel, Materials and Supplies, Equipment and Miscellaneous Services, Both Direct and Indirect, Compared with Loans Made to Banks, Insurance Companies and Other Borrowers by Reconstruction Finance Corporation Up to August 31, 1932, and the Budget for Operating the Government for the Year June, 1932, to June, 1933.

products, not counting forest products supplied by construction contractors; \$438,909,000 for iron and steel products; \$6,280,000 for cement; \$22,445,000 for lubricating and illuminating oils; \$53,873,000 for products of copper and brass; \$25,285,000 for various electrical supplies; \$21,738,000 for stationery and printing, and an equal amount for dining-car and restaurant supplies, together with imposing sums for leather, paints, chemicals, supplies for automotive equipment, and various train supplies.

The foregoing do not, however, cover the entire range of railway expenditures in the country's markets for, in the five years ending with 1929, there was also invested \$3,935,138,000, or an average of \$787,028,000 per year in new equipment, new buildings, new lines, and improvements and additions to roadway and track. The expenditures for equipment alone averaged \$308,869,000 a year, including \$73,435,000 for new locomotives, \$170,645,000 for freight cars, and \$46,596,000 for passenger cars, while the expenditures for new lines, new buildings, bridges, etc., averaged \$478,174,000 a year. It is estimated that about \$422,619,000 of these capital expenditures went for materials, supplies and equipment not included in the direct purchases made by the railroads, while approximately \$109,000,000 represented the cost of contract work not included in the cost of materials. In addition to these purchases, the railroads purchased heat, light, water, rent, insurance, advertising and miscellaneous services in the estimated amount of approximately \$350,000,000 a year.

When these expenditures for improvements are added to those for current operation and maintenance of the properties, and when to these are added the indirect purchases of the railroads, it is found that American industry and American business received from railway operation and improvement during the five years previous to the depression approximately \$2,325,000,000 per year, not counting taxes, dividends, or interest on bonds. Practically every penny of this money was spent in the markets of the United States.

Railroads Are Largest Consumers

The railroads consumed 25 per cent of the coal and 20 per cent of the fuel oil produced in the United States during the five-year period ending with 1929. They purchased 39 per cent of all the steel castings, more

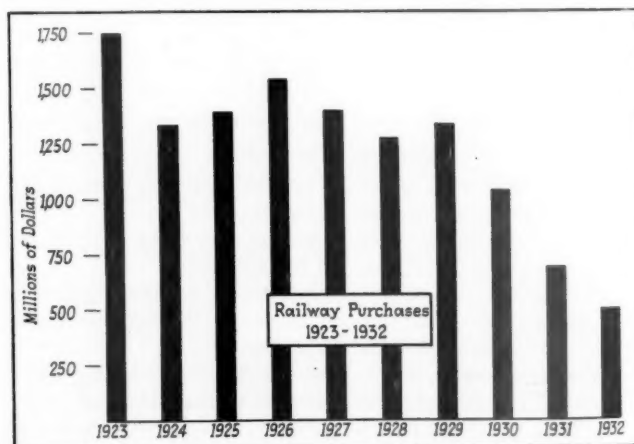
than 20 per cent of all the lumber cut and 8 per cent of the cement production, and their consumption of finished iron and steel was equal to or greater than 20 per cent of the total production. Thus, the railroads were leading consumers of fuel and forest products and larger consumers of steel than either the building or automotive industries.

Besides being greatly diversified, railway purchases are also marked for their continuity. For example, the purchases made by the railroads in 1929 for fuel and supplies amounted, respectively, to \$112,500,000 in January; \$104,500,000 in February; \$112,100,000 in March; \$112,000,000 in April; \$112,000,000 in May; \$106,500,000 in June; \$105,000,000 in July; \$109,500,000 in August; \$106,000,000 in September; \$121,500,000 in October; \$119,000,000 in November and \$108,000,000 in December.

The industries benefiting as a result of these expenditures comprise, first of all, mills and factories which have grown up with the railroads—industries to which the railroads and the country are indebted for the development and perfection of the transportation machine and whose fortunes rise or fall entirely or in large part with railway prosperity. They include companies whose names are known to every investor and household, for example, the Pullman Company, the American Car & Foundry Company, the American Steel Foundries, the Baldwin and American Locomotive companies, the Westinghouse companies, the General Electric Company, the United States Steel Corporation, etc.

With these industries are coal mines located in every coal-producing state in the Union, lumber mills in the North, South and West; oil refineries in Pennsylvania, Texas, Louisiana, Oklahoma and Wyoming; and scores of companies engaged in the manufacture of railroad tools, specialties and miscellaneous materials. They include printers, general distributing and wholesale concerns, building contractors and hundreds of manufacturing agents who rent offices in every large city. They include travel bureaus, warehousing concerns, advertising agencies, ice manufacturing plants, piers and dock companies, newspapers, teaming contractors, dealers in scrap iron and thousands of farmers scattered all over the country who cut ties for railway consumption and produce the food served in dining cars. They include public utilities that produce electric light and power and also scores of municipalities from which the railroads buy water for locomotives and general consumption.

A partial roster of railway supply manufacturers, exclusive of coal and lumber producers, contains 3,563



Railway Purchases of Fuel, Materials and Supplies Per Year, Exclusive of Equipment and Supplies Acquired Indirectly Under Construction Contracts

firms with plants in 650 cities and towns, distributed as follows:

Partial List of Railway Supply Industries, Excluding Coal and Lumber Producers

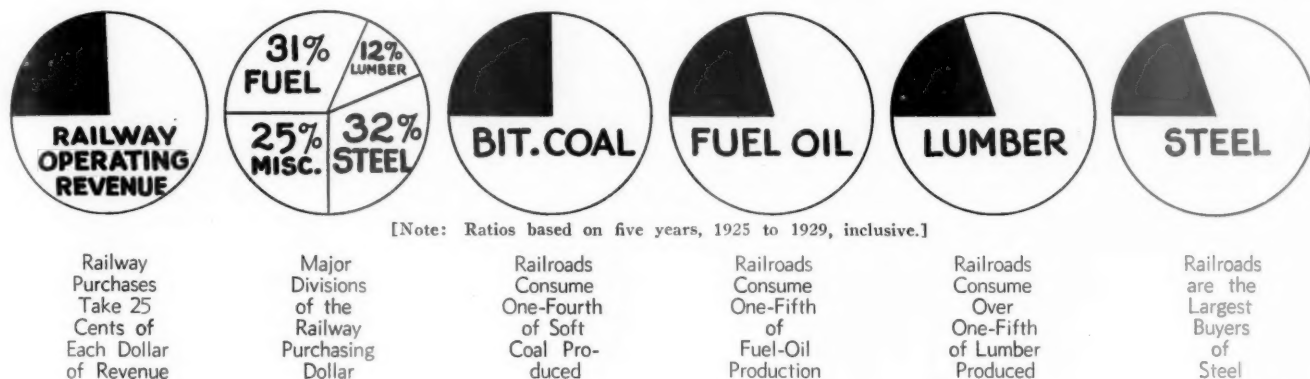
States	Number of		States	Number of	
	Companies	Towns		Companies	Towns
Alabama	30	8	Montana	1	1
California	31	6	Nebraska	23	3
Colorado	19	2	New Hampshire	11	6
Connecticut	83	24	New Jersey	112	43
Delaware	12	8	New York	598	46
Florida	5	3	North Carolina	13	9
Georgia	16	8	Ohio	405	60
Illinois	602	53	Oklahoma	4	2
Indiana	94	34	Oregon	11	1
Iowa	41	19	Pennsylvania	515	102
Kansas	6	6	Rhode Island	16	7
Kentucky	24	3	South Carolina	4	3
Louisiana	7	3	Tennessee	32	7
Maine	14	7	Texas	12	5
Maryland	38	6	Utah	12	7
Massachusetts	233	51	Virginia	59	16
Michigan	105	36	Washington	22	3
Minnesota	69	15	West Virginia	99	28
Missouri	184	13	Wyoming	1	1

It is conservatively estimated that the total number of persons directly employed by industries in meeting the

months of 1932, amounting to approximately \$282,200,000, were approximately \$207,600,000, or 42 per cent, less than in the corresponding period of 1931.

It is conservatively estimated that the expenditures for fuel, supplies, equipment and all other purchases made by the railroads in the markets of the country for the year 1932 will be smaller than the purchases made in 1929 by more than 1½ billion dollars, and that the total purchases of the railroads in the three years since 1929 will be smaller than the purchases in the three years previous by almost 3 billion dollars.

The American people have been deeply interested in the loans made by the Reconstruction Finance Corporation to banks, insurance companies, etc., and the provisions made by the federal government for public works and in the war debts due this country. At the close of business on August 31 last, loans of the Reconstruction Finance Corporation outstanding amounted to approximately \$965,000,000, not counting loans of approximately \$65,000,000 to farmers and approximately



normal requirements of the railways is in the neighborhood of 1,500,000.

Decline of Purchasing Disastrous

What has happened to these industries and to their employees? When the President of the United States appealed to industrial leaders late in 1929, following the collapse of the stock market, to forestall a panic by continuing their programs of improvement, the railroads responded by spending \$872,608,000 for capital improvements during 1930—a larger expenditure by approximately \$20,000,000 than was made in the year previous; yet, with the decline in traffic and earnings, purchases of fuel and supplies declined in the same year approximately \$281,000,000. In the following year (1931), the combined expenditures of the railroads for fuel, materials and supplies and equipment were approximately \$622,000,000 less than in 1930 and approximately \$915,000,000 less than in 1929, while the estimated expenditures made in the markets of the country for purchases of all kinds were approximately \$1,151,000,000 less than in 1929.

Statistics of capital expenditures made in 1932 as a whole are not available, but the drastic curtailments of expenditures with equipment builders and contractors will appear from the fact that during the first nine months of 1932, only 1 locomotive was ordered, as compared with an average of 981 annually in each of the five years ending with 1929, and that there were only 1676 freight cars ordered, as compared with an average of 69,300 annually in each of the five years ending with 1929. Purchases of fuel and materials and supplies made by the railroads during the first eight

\$35,000,000 to states and cities for relief. At the close of business on August 31, the federal government had under construction public works which, when completed, will cost approximately \$325,000,000. Payments now due the United States from foreign nations on the War debts amount to approximately \$125,000,000. It will be seen that the shrinkage in railway purchases exceeds by a considerable amount the sum of all these values. The cost of such well-known projects as the Panama canal and the Hoover dam are bagatelles by comparison.

Factories Closed—Workers Idle

The railroads are still supporting the basic industries of the country with purchases to the extent of approximately \$40,000,000 per month and thereby exerting an important stabilizing influence upon business, but the effects of the decline in railway purchases since 1929 have been staggering. Business houses and industries which depended in part only upon railway purchases have suffered heavily from the reductions in railway purchases, while those companies which are organized especially to manufacture railroad materials have been prostrated, in many cases. Plants of equipment builders are shut down and millions of dollars worth of taxable property is earning nothing for owners or creditors. Aside from what was stated in the beginning, it is significant of the effect of this condition on employment that only 55 railway supply manufacturers, chosen at random, with plants in 105 towns and cities, are today employing 35,272 fewer persons than normally, and thereby withdrawing support from approximately 140,000 men, women and children because of the decline in railway purchases. That these 55 plants are widely distributed will appear from the table.

The consequences of reduced railway purchases have, of course, spread to the lumber mills on the Pacific Coast and in the South, and have contributed to the misfortune of thousands of tie producers. They have likewise adversely affected coal and iron mines and other industries which supply raw materials for railway requirements.

Reduced Buying in All States

Statistics recently compiled of the purchases made in the Mississippi Valley states by railroads operating in

Employment Changes in Representative Factories by Railway Supply Industries

Location of plant	Average employment 1927, 1928 & 1929, full-time basis	Present employment, full-time basis
Bessemer, Ala.	500	32
New Haven, Conn.	103	30
Wilmington, Del.	746	170
Wilmington, Del.	492	152
Wilmington, Del.	662	closed
Brunswick, Ga.	91	11
Chicago, Ill.	3,602	495
Chicago, Ill.	139	36
Chicago, Ill.	722	208
Chicago Heights, Ill.	401	224
East St. Louis, Ill.	79	41
Edwardsville, Ill.	43	11
Harvey, Ill.	1,800	390
Harvey, Ill.	525	220
Madison, Ill.	974	46
Madison, Ill.	49	19
Marion, Ill.	19	4
Rochelle, Ill.	131	49
West Pullman, Ill.	185	137
Bloomington, Ind.	9	3
East Chicago, Ind.	1,066	250
East Chicago, Ind.	110	10
Indianapolis, Ind.	52	11
Jeffersonville, Ind.	604	59
Michigan City, Ind.	1,081	138
Terre Haute, Ind.	155	38
Russell, Ky.	88	55
Bogalusa, La.	33	11
De Ridder, La.	11	4
New Orleans, La.	47	36
Shreveport, La.	92	8
Baltimore, Md.	112	71
Woodberry, Md.	250	8
Detroit, Mich.	482	83
Kansas City, Mo.	31	8
St. Louis, Mo.	1,279	234
St. Louis, Mo.	500	100*
Springfield, Mo.	37	10
Manville, N. J.	15	12
Paterson, N. J.	49	22
Buffalo, N. Y.	156	7
Buffalo, N. Y.	500	150
Dunkirk, N. Y.	870	394
Livingston Manor, N. Y.	14	9
New York City	270	189
Rome, N. Y.	153	42
Schenectady, N. Y.	2,486	631
Bucyrus, Ohio	125	15
Cleveland, Ohio	85	35
Columbus, Ohio	910	210
Hamilton, Ohio	673	36
Toledo, Ohio	111	23
Hugo, Okla.	29	7
Niagara Falls, Ont.	50	11
Berwick, Pa.	2,552	1,650
Burnham, Pa.	2,032	774
Eddystone, Pa.	5,994	1,369
Franklin, Pa.	181	69
Latrobe, Pa.	601	484
Milton, Pa.	497	74
New Kensington, Pa.	182	76
Houston, Tex.	76	74
Richmond, Va.	341	61
Chicago, Ill.; Marion, Ind.; Grand Rapids, Mich., and Franklin, Pa.	1,006	446
Birmingham, Ala.; Atlanta and Savannah, Ga.; Hammond, Ind.; St. Louis, Mo.; Rochester, N. Y.; Toledo, Ohio; Sayre and West Hempstead, Pa., and Portsmouth, Va.	800	200
Pueblo, Colo.; Chicago and East St. Louis, Ill.; Hillburn and Niagara, N. Y., and Superior, Wis.	688	180
Los Angeles, Cal., and Seattle, Wash.	81	16

* Part time.

those states, but excluding purchases made in those states by railroads which do not operate therein, illustrate the substantial interest of each state in railway purchases and indicate the imposing losses resulting from declines in railway purchases. The accompanying table shows the actual amount spent in each of these states in 1929 and 1931; also the estimated amount spent in 1932, as determined by reducing the amount spent in each state in 1931 by the amount which the total railway purchases for the first eight months of 1932 declined

from the corresponding purchases in 1931. The railroads operating in Illinois, for example, expended \$166,200,000 less in that state for materials, supplies and equipment in 1932 than in 1929, while the losses to the states of Colorado and Missouri were approximately \$22,000,000 and \$41,200,000, respectively. While corresponding purchases in other states are not available, it is safe to say that the reductions were even greater in some of the other states and that every state has suffered heavy losses.

Reductions Hit Cities

Obviously, the losses to the individual states of the Union are simply the combined losses to the towns and cities in these states. Whereas, for example, one railroad spent \$79,617 for materials and supplies in Port Arthur, Tex., in a representative year prior to the depression, \$2,443,312 in Kansas City, Mo., \$66,926 in Texarkana, Ark., \$45,216 in Beaumont, Tex., and \$31,057 in Lake Charles, La., the purchases of the same railroad in those cities have been reduced from 50 to 90 per cent with the shrinkage of earnings.

The direct effects of the shrinkage in railway purchases have had correspondingly serious effects indirectly. The merchant who has depended for his trade upon the railway manufacturer's employees has been compelled to reduce his expenditures, and the same is true of all other forms of trade. Thus, directly and

Purchases in Mississippi Valley States by Railways Operating in Those States

	1929	1931	1932 *	Reduction
Arkansas	\$8,500,000	\$4,600,000	\$2,600,000	\$5,900,000
Colorado	27,000,000	8,700,000	5,000,000	22,000,000
Illinois	220,900,000	95,100,000	54,700,000	166,200,000
Iowa	10,900,000	4,200,000	2,400,000	8,500,000
Kansas	10,700,000	4,900,000	2,800,000	7,900,000
Kentucky	16,700,000	8,400,000	4,800,000	11,900,000
Louisiana	13,700,000	5,100,000	2,900,000	10,800,000
Minnesota	28,300,000	16,800,000	9,600,000	18,700,000
Mississippi	4,300,000	1,500,000	800,000	3,500,000
Missouri	51,700,000	17,800,000	10,500,000	41,200,000
Nebraska	4,300,000	2,400,000	1,400,000	2,900,000
Oklahoma	10,600,000	6,100,000	3,500,000	7,100,000
Tennessee	5,500,000	3,200,000	1,700,000	3,800,000
Texas	34,900,000	17,300,000	10,000,000	24,900,000
Wisconsin	13,900,000	6,000,000	3,500,000	10,400,000

* Purchases for 1932 estimated on the basis of the reduction in total railway purchases in all states.

indirectly, the reduced expenditures of the railroads in the markets of the country have contributed to the reduction in home building, in the purchase of the common necessities and luxuries, in the payment of income and property taxes, and have helped to swell the army of families now dependent upon charity. By contributing directly and indirectly to the reduced consumption of food products and clothing by people and to the consumption of the products of agriculture by factories, it has contributed to the difficulties of the farmer.

Reconstruction

The immediate problem facing the country is that of reviving business. Contrasted with many plans proposed or in effect for reviving business, the railroads are a self-supporting and a self-liquidating industry of the highest grade. They are not a drain on the treasury of the states and federal governments, but, instead, as pointed out elsewhere in this issue, they contribute directly to the support of the various governments and, until crippled by adversity, provided a grade of investment second only to the best government bonds. The railroads are, moreover, an essential business which must be maintained and operated at all cost and whose highly developed, diversified and co-ordinated service, instead of being localized, reaches into and profoundly affects the business and community life of every section of the

country. From the very nature of the functions and demands upon them, their neglect in the present only serves to multiply the difficulties and cost of restoring conditions in this country a few years hence.

Curing the Depression

Furthermore, unlike the automotive industry, for example, which merely converts what it purchases into another form for sale, the railroads are ultimate consumers of what they purchase. They are consumers which have a present capacity to absorb the output of mills and factories because they must be operated. They are to be distinguished from such consumers of labor and material as post-offices, highways and similar projects in that their purchasing does not end with their construction but constantly goes on to provide the requirements of operation, wear, tear and improvement.

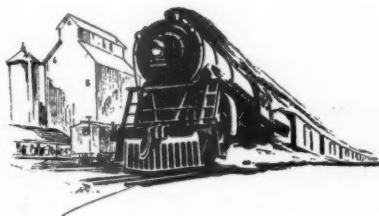
At present, the railroads are actually in a state of undermaintenance, manifested to an increasing degree in not only the condition of their locomotives and cars, but in the condition of their tracks and other parts of the plant. It is undermaintenance brought on by the curtailment of purchases and must be remedied by the application of new materials to prevent confusion similar, if not more aggravated, than that which undermaintained railroads caused business following the war. It is also significant of the consuming capacity of railroads that, with all the expenditures which have been made in the past decade for their improvement, the demands for increased economy of operation, faster speed, greater capacity and greater diversity of service require further improvements which can be made only through purchases. The railroads, unlike the farmers and consumers, moreover, do not present relatively unorganized and scattered elements in a reconstruction program, but a highly-concentrated and co-ordinated business which can be put into motion as a unit with the least confusion and delay.

Considering the magnitude of railway purchasing, the diversity and basic character of the requirements and the

wide distribution of the immediate beneficiaries of the orders placed, the effect of a recovery in railway purchasing on business would be instantaneous and powerful. Locomotives and car plants, steel mills, saw mills, cement factories and process mills would immediately respond to the increased orders received by starting up their machinery and re-employing labor. Other mines and mills, many remotely situated from the consuming or even manufacturing points, would respond to orders placed on them by the factories for raw materials. The news would spread and energize other business. Commerce would respond and rail earnings would increase and provide railways with the means of meeting the initial obligations and financing future purchases. This power of railway purchasing to affect business in this manner has been demonstrated in past depressions.

Responsibility of Government

The necessity of restoring railway purchasing and its immediate and profound effect on business reduce the problem to that of restoring the ability of railroads to make these purchases. The solution of this problem requires recognition of the fact that the impairment of railway buying power is not a product of the depression alone but is one of the inevitable effects of the increasing difficulty of operating profitably prior to the depression in the face of burdensome regulation and unrestrained competition. Equally important is the uncertainty of public policy toward railroads in the future. If the force of America's greatest industry is to be utilized in restoring business and commerce through its purchasing power, even-handed justice must be dealt between the railroads and their competitors and such modifications in the rules under which they are required to operate and such assurances of a constructive public policy toward the railroads must be given as will restore the confidence of the investor and otherwise re-establish the financial credit upon which American rail transportation depends. Reforms required to accomplish this are outlined elsewhere in this issue.



Railway Purchases and Industry Go Hand in Hand

Who Are the Railways' Owners?



Thrifty Investors



Savings Depositors



Insurance Beneficiaries



Religious Societies



Schools and Colleges



Scientific Research

Directly or indirectly the entire American people have a financial interest in them, and this is particularly true of educational and charitable enterprises—Situation most precarious but can be quickly ameliorated

THE railways are owned—directly and indirectly—by the entire American people. The investment in them totals more than 26 billion dollars, but only slightly more than 19 billions of this is capitalized, i. e., represented by securities. The remainder is surplus—that is, earnings which might have been distributed among the stockholders but which instead were re-invested in the property. Of the outstanding securities, approximately 7 billions are stocks and 12 billions are bonds.

Savings and Life Insurance

These securities are owned, not only by individuals, but collectively as well. By collective owners is meant the insurance companies and savings banks which invest the funds of their policyholders and depositors. Some 5 billions of the outstanding 12 billions of railway bonds are held in this collective ownership, since such securities have heretofore been regarded among the safest and thus possessed a peculiar appeal to such investors. Institutions with such investments are not alone those in great metropolitan centers, but include also those of local interest in practically every state in the Union—from New England to Washington State and from Florida to California. There is scarcely a family in the country which does not have some financial interest in these great fiduciary institutions—either as a depositor or policyholder, or as a beneficiary of someone who is. And those who, possibly, may not have this interest certainly have their economic well-being affected favorably or adversely by the safety or insecurity of these great repositories of the national thrift.

In addition to the individuals, banks and insurance companies, however, there are numbered among the owners of the railroads another class of institutions which are vital not only to our economic well-being but to the maintenance and advancement of civilization itself. These are hospitals, educational institutions, research foundations and philanthropic endowments generally.

As an example, there is a great endowed foundation

from the beneficence of which the whole world profits, and which carries on incessant warfare on disease. In 1931, it supported medical and other scientific and social research at colleges in many states, among which were Texas, Vermont, Connecticut, North Carolina, Colorado, Washington State, Illinois, California, Missouri, Minnesota, Louisiana, Virginia, Maryland, Ohio, Tennessee, Massachusetts, New Mexico, Pennsylvania, New York and the District of Columbia. It contributed liberally to the work of scores of learned societies and church and social service organizations, the work of which is not only nation-wide, but world-wide. In addition, the organization carried on a vast medical research program of its own, looking to the continued reduction of human suffering. This foundation, according to its 1931 report, owned \$39,000,000 of railroad bonds, the interest on which formed a considerable portion of the income enabling it to maintain its benefactions.

Church Pensions and Education

Within the past few weeks secretaries and treasurers of clergymen's pension funds of twenty different religious denominations had a meeting to which a well-known investment banker was invited to express his views on the future of the railways in the securities of which the various organizations have millions invested. The group, it is said, represents 125,000 churches with 107,000 clergymen, 22 million members—every one of whom has a stake in railroad solvency.

The solution of the railroad problem is a matter of vital importance to the future of higher education in the United States. The portfolios of some of the best known of such institutions include an important percentage of railroad securities. It is not, however, merely the large institutions which have such investments. There are endowment funds for education and other social purposes the earnings of which are expended in every state from one end of the land to another, and most of them have a portion of their assets invested in railroad securities.

A foundation, which exists to foster education and which

Everyone Shares in Railway Earnings

Everyone who has an insurance policy or a savings account in his family has a financial interest in the railways.

Educators, medical research and welfare men and social workers are to an important extent maintained at their highly necessary tasks by railway earnings.

Clergymen's pensions are paid from the earnings of railway securities.

Financial interest in the railways is diffused over the entire population. There is no one who does not stand to benefit in some measure from railroad prosperity or who would entirely escape suffering from their financial failure.

provides pensions for superannuated educators, in its statement for its last fiscal year reported investments of \$31,000,000 in bonds, of which more than \$11,000,000 were those of railroads. Hospitals, orphanages, poor-relief societies, homes for elderly people, missionary societies—all are included among the institutions which share in the ownership of the railroads, and which would suffer heavily if the railroad problem is not promptly solved.

From the foregoing it appears that financial interest in the railroads is diffused over the entire population, and that there is no one who does not stand to benefit directly, in some measure at least, from railroad prosperity or who could escape some measure of suffering from the collapse of the railroad financial structure.

Stockholders Off the Payroll

Having seen who owns the railways, we may now turn to a view of what has happened to the income from, and the value of, their securities. The hardest hit, naturally, are the stockholders. While the number of employees on the railroads has declined about 40 per cent since 1929, the common stockholders have been all but entirely removed from the payroll, with only four major railroads now making such payments, and only two of the four currently earning as much as they are paying. Income, then, has disappeared and market values are the lowest on record. The Dow-Jones average price of representative railroad stocks reached its low point for the current year on July 8, when it stood at 13.23. On the same day the average price of industrial stocks was 41.22, or 212 per cent greater than that of railroad stocks, whereas in the depression of 1921 industrial stocks actually fell slightly lower than those of the railways.

The July 8 price of industrial stocks was about 35 per cent less than the lowest price these stocks reached during the 1921 depression, whereas this year's low point in railroad stocks was 80 per cent lower than the bottom they touched in 1921. If we go back to 1897, when the prices of railway stocks reached the lowest level ever reported before the present depression, we find that the low touched by the average price of industrial stocks on July 8 of this year was actually several points above the lowest point then reached, while the average price of railroad stocks on July 8 this year was 72 per cent less than the lowest point reached in 1897.

In periods of prosperity prior to that which culminated in 1929, railroad stock prices frequently went higher than those of industrial stocks. In 1929, however, at the top of the market, industrial shares were quoted at more than twice the average price of railroad stocks. These comparisons give some indication not only of the cataclysmic loss in value of this class of railroad securities, but they strongly suggest also the existence of unfavorable factors in the railroad situation which affect them and not other industries, and which were not present in 1921.

These factors were, however, plainly present in 1929, accounting for the failure of railroad shares to rise commensurately with those of industry, which they had never before failed to do except during the war-time period of government operation.

These comparisons plainly suggest the effect of the competition which the railroads have had to meet in recent

years and should effectively answer the statement which one occasionally hears to the effect that the trouble with the railroads does not lie in loss of traffic to competitors, but solely to the low level of general business.

Railroads at Half Price

So much for the relative decline in railway stock prices. But what is the loss in the aggregate? In 1929 the approximately 7 billion dollars, par value, of railroad stocks attained a market value of somewhat more than 12 billions. In July of this year these same securities were worth considerably less than 2 billions and now are quoted at but slightly more than that total. At current prices of both stocks and bonds, absolute ownership of the entire railroad industry, in which more than 26 billions is invested, could be acquired for about half that sum.

It is to be expected, of course, that railroad stocks would bear the brunt of any heavy decline in earnings. Some railroad stocks, however, had yielded dividends for such long periods that they came to be looked upon by prudent investors as practically the equivalent of bonds—and even superior to many such securities. How many persons a few years ago would not have preferred as an investment the common stock of a company which had paid dividends continuously for 80 years to the junior bond of some newer company with a much less remarkable record? Wisely or unwisely, many such persons did choose the common stock. Railroad stockholders, by and large, are not speculators but are thrifty investors—many of them persons of small means dependent upon the income from their holdings to provide for them in their old age. The economic effect on these persons, their dependents and those who supply their wants of bringing their income, which was 497 millions in 1930, to the virtual vanishing point has had a terrific and widespread effect on general business, just as has the enforced curtailment of railroad employment.

Bondholders have, to date, fared somewhat better—the market value of their holdings has shrunk, but, thanks to the timely aid of the railroads themselves through the Railroad Credit Corporation and the federal government through the Reconstruction Finance Corporation, there have been but few defaults in interest, so that holders of these obligations, where they have not been forced to sell, have so far suffered little diminution in income.

Loans No Solution

But maintenance of bondholders' incomes cannot be continued indefinitely through loans. The railways as a whole in 1932 will fail to earn their fixed charges—and by a total of about 200 million dollars. Even back in 1894 and 1895 the net income of the railways as a whole was more than sufficient to cover bond interest as a whole—and yet that depression resulted in receivership for 25 per cent of all railway mileage—which gives some

indication of the magnitude of the catastrophe which palliative loans to date have avoided, but which they cannot postpone indefinitely unless a serious effort is soon put forward to deal fundamentally with some of the problems of the railways in a manner to assure them of an increase in net income—or rather to provide them with some net income, since they are not earning any now. Railroad

What Has Happened to Investors

Almost all holders of railway stocks have been cut off the payroll.

Average railway stock prices this year fell to 72 per cent less than the lowest price ever before recorded, whereas industrial shares have only barely touched previous lows.

The drop since 1929 in the market value of all railway stocks aggregates ten billion dollars; in bonds, the total loss is four billions.

bonds listed on the New York Stock Exchange on November 1, 1932, had a face value of \$10,580,000,000 and a market value of \$6,334,000,000—a discount of more than 40 per cent, representing a paper loss to investors of more than 4 billions. If conditions should arise which would force the actual sale of any large portion of these bonds, the decline would, of course, be much worse. That such sale in large quantities has not yet been necessary is due to the fact that the operation of the requirement of most states that fixed charges be earned $1\frac{1}{2}$ times to make a company's bonds legal for savings banks and trustee investment has been suspended temporarily. Total loans to railroads by the Reconstruction Finance Corporation approximate 300 millions and by the Railroad Credit Corporation 34 millions, while the Interstate Commerce Commission has approved further loans by the Reconstruction Finance Corporation for some 45 millions, which transactions have not yet been completed.

Faced with Maturing Debt

Nor is the problem merely one of meeting interest payments. Railroad bonds are constantly coming to maturity and must be refunded, and this is impossible in the money market under present conditions. Several refunding operations have been carried through in the current year by paying maturing obligations, partly in cash borrowed from the Reconstruction Finance Corporation and partly in new securities. Failure of security holders to accept this solution has recently resulted in receivership for one important line. No one can say with certainty what 1933 holds forth, but with maturities in that year aggregating 350 millions, it can readily be seen that railroad credit must improve considerably if serious embarrassment is to be avoided.

Severe Collateral Requirements of R. F. C.

The situation is aggravated by the conservative collateral requirements of the Reconstruction Finance Corporation, which require the deposit with it of bonds of a face value in many cases several times that of the loan advanced. At such a rate, it does not take a great while to exhaust the credit of many companies. Investment bankers have been urging a liberalization by Congress of the conditions under which the Corporation may make loans, contending that unless a modification is secured within the next few months some major systems will be unable to secure the assistance necessary to prevent a financial breakdown. Such a modification would consist in placing the value of collateral security at what it would likely be under minimum normal conditions, rather than at its present acutely depressed market value. With the government's present loans to the railroad industry, which it has made to avoid receiverships and general financial breakdown, it would be unfortunate at this time to allow too great rigidity to counteract the credit maintenance thus far attained—particularly since there are many who now detect signs of clearing in the clouds of depression.

The railroad investors will thus look anxiously to their lawmakers, to the regulatory authorities and to leaders of public opinion during the next few months. They, the investors, are—in a larger sense

—the whole American people. Their condition at the present time is most precarious. It will become more so if measures are not speedily adopted which will correct some of the fundamental situations which have depressed the railroads financially far below business in general, and if temporary relief such as that extended by the Reconstruction Finance Corporation is not adequately continued over the period necessary for the fruition of the more fundamental remedial measures.

An Opportunity for Statesmen

The situation of the railroads at the present time thus offers an opportunity for sound statesmanship which is not frequently presented. The fate of the owners of some 19 billions of securities—ultimately the whole American people—as well as that of the millions whose daily bread comes from their service to this great industry, is at stake. Yet the problem is not insoluble—on the contrary a beginning can be made almost at once. The attitude of the socially minded public, as typified by the National Transportation Committee, of which Former President Coolidge is chairman, seems to be one in which railway owners may repose great confidence, and this same spirit is being reflected more and more by the press, by regulatory authorities and by public men in both our state and national legislatures. To them the security owners look with hope.

Plight of Railway Employees

(Continued from page 782)

lation which will place all competing transportation agencies on an equitable basis. Railway men see in this competition of subsidized and unregulated carriers a threat to the high standards of living which they enjoy. These competitors of the railways are not forced, like the latter, to observe hours-of-service laws and other working rules; neither are their wage scales comparable with that of the railways. An example, perhaps somewhat extreme, but nevertheless indicating the possible extent of the labor competition which railway employees are facing is set forth in an accompanying quotation from a circular distributed by railway employees.

"Conscienceless Exploitation" of Labor by Unregulated Highway Motor Carriers

Along the same line is an editorial from a recent issue of "The Peoples Press" of Port Arthur, Texas, which says that the strongest reason for defense of the railroads against unregulated highway carriers can be advanced from labor's viewpoint because of "the conscienceless exploitation of those who operate the trucks, load the freight and do all the labor incident to the business."

"Ten to fifteen dollars a week," it continues, "with no pay for overtime, and a day's work limited only by the need for work, extending many days to fourteen to eighteen hours, constitute a condition of affairs which should not be tolerated And the issue

(Continued on page 796)

Loans a Palliative, Not a Cure

Loans from the government to prevent default of railroad securities sustain the general credit structure, but offer no permanent solution to the investors' difficulties. Such loans in the long run can achieve the purpose for which they were made only if the fundamental conditions which have depressed the railroads financially far below business in general are removed.

Investors must look to patriotic public men for the adoption of legislative and regulatory measures in which alone lie a true remedy for their difficulties.



Adapted from a cartoon in *Nation's Business*
The Tax Collector is Receiving More Than the Railroad Itself

The Effect of Excessive and Inequitable Taxation of the Railways

THE power to tax is the power to destroy.

No industry has had this maxim impressed upon it more forcefully than the railroad industry, for here it is a two-edged sword that slashes net earnings, first, by the tribute which it exacts and, second, by the advantages given to improperly taxed and subsidized competitors.

First let us deal with the taxes paid by the railroads. In the first nine months of 1932, the latest period for which reports are now available, railway operating revenues totaled \$2,363,830,000. Railway operating expenses and equipment and joint facility rentals in this period amounted to \$1,940,160,000, leaving a balance of \$423,670,000 available for taxes and for a return upon the money invested in railroad property. Of this balance, taxes consumed \$221,214,000, or 52 per cent, leaving only \$202,456,000, or 48 per cent, for the bondholders and stockholders of the railways. In other words, the tax collectors received approximately \$20,000,000, or almost ten per cent, more than the net amount earned upon railroad investment.

Railway Men and Equipment Working for Tax Collectors

What does this mean, in physical terms? In the first nine months of 1932 the railways employed an average of 1,060,000 persons, they were operating 242,186 miles of line, and they owned approximately 55,000 locomotives, 51,000 passenger-train cars, and 2,200,000 freight cars. Since taxes consumed 52 per cent of the gross revenues left after paying operating expenses and rentals, this means, in effect, that 551,000 railway employees, 142,900 miles of railway line, 28,600 locomotives, 26,900 passenger-train cars, and 1,144,000

Takes constantly increasing parts of their earnings, while also diverting large amounts of their earnings to their tax-aided competitors

freight cars were working, so far as net earnings were concerned, entirely for the tax collectors, local, state and national, and not at all for the financial benefit of the railways themselves.

This situation is the culmination of national, state and local policies of expenditures and taxation which, ever since the start of the present century, have laid relatively heavier and heavier burdens upon the steam lines.

Rail Taxes \$30,000,000 in 1890; \$403,000,000 in 1929

Railway tax accruals from 1890 to 1932 are shown in the first of the accompanying tables. From this table it is seen that these tax accruals amounted to somewhat less than 30 million dollars in 1890. In 1902 railway tax accruals exceeded 50 million dollars annually for the first time. The 100-million dollar mark was passed in 1911; the 200-million mark in 1917; the 300-million mark in 1922, and the 400-million dollar level in 1929. Railway tax accruals by decades have been as follows:

1890-1899	\$369,789,000	1910-1919	\$1,563,887,000
1900-1909	616,594,000	1920-1929	3,511,363,000

Tax accruals in the decade 1890-1899 averaged \$36,978,900 annually. This annual average increased to \$61,659,400 in the decade 1900-1909, to \$156,388,700 in the decade 1910-1919, and to \$351,136,300 in the decade 1920-1929. In that last ten years railway tax accruals were almost ten times as great as from 1890 to 1899, almost six times as great as the total paid from 1900 to 1909, and more than twice as large as the sum paid from 1910 to 1919. In fact, railway tax accruals in the ten years 1920-1929 inclusive, amounting, as shown, to \$3,511,363,000, exceeded by \$961,093,000, or by 38 per

cent, the total tax bill of the railways (\$2,550,270,000) for the preceding thirty years.

The figure of 403 million dollars reached in 1929 represents the peak of actual railway taxation. Relatively, as will be shown later, current taxes are far heavier than those of 1929. Dealing now, however, only with taxes themselves, and ignoring their relationship to the ability of the railways to pay, there have been steady declines in the level of railway taxes since 1929.

Recent Reductions Due Largely to Lower Earnings

Generally speaking, these reductions have been largely due to the decreases which have occurred in railway net earnings, these decreases resulting automatically in reduced federal income taxes, and in reduced taxes in certain states where the railways are taxed on a gross or net revenue basis. The total taxes paid by the Class I railways and their non-operating subsidiaries declined by 48 million dollars from 1929 to 1930, while their taxes paid to the federal government declined approximately 50 million dollars in that same period. In other words, there was an increase, between 1929 and 1930, of about two million dollars in the state and local taxes levied upon these railroads. Similarly, from 1930 to 1931, there was a decrease of 46 million dollars in the tax bill of the Class I railways and their non-operating subsidiaries, of which 31 million dollars, or more than two-thirds, represented a reduction in federal income taxes. The general course of railway tax accruals from 1890 to 1931 is shown on the accompanying Chart I.

A part of this growth in railway tax accruals has resulted, of course from the growth of the railway itself. In 1890, when railway taxes were less than 30 million dollars, there were approximately 164,000 miles of railway line in the United States. In 1929, when tax accruals exceeded 400 million dollars, there were about 249,000 miles of railway line. Railway tax accruals per mile of road are also shown in Table I.

Rail Taxes Per Mile Increased Eight-Fold

Tax accruals per mile of railway line amounted to \$182.19 in 1890. In 1929 they averaged \$1,614.46. Railway taxes per mile of line first exceeded

\$200 in 1894	\$800 in 1917	\$1,300 in 1923
\$300 in 1906	\$900 in 1918	\$1,400 in 1925
\$400 in 1910	\$1,100 in 1920	\$1,500 in 1926
\$500 in 1914	\$1,200 in 1922	\$1,600 in 1929
\$600 in 1916		

By decades, average railway taxes per mile of line were as follows:

1890-1899 \$207.48	1910-1919 \$625.29
1900-1909 285.77	1920-1929 1,403.86

As in the case of total railway taxes, there was likewise a reduction in 1930 in average railway taxes per mile of line, this reduction again resulting from decreased

revenue and income taxes, caused automatically by lowered railway earnings. The course of average railway taxes per mile of line is shown in Chart II.

Increased Taxes Far Outstrip Increased Investment

It is realized that changes in mileage alone do not necessarily reflect the changes which have occurred in the entire railway plant. To include the entire railroad properties there are shown, again in Table I, railway tax accruals per \$1,000 of investment in road and equipment. It must be clearly recognized in this connection that the investment figures used in calculating these averages are not the basis on which taxes are actually levied, and that averages thus calculated cannot be contrasted with tax rates on other property. Nor does the property investment measure with exactness the actual value of railway property; it is here utilized merely as a relative basis of comparison of the tax burden, one year against another.

In 1890, railway tax accruals per \$1,000 of investment amounted to \$3.66. In 1929 the corresponding average was \$15.81. Railway tax accruals per \$1,000 of investment first exceeded

\$4.00 in 1894	\$11.00 in 1917
5.00 in 1906	12.00 in 1918
6.00 in 1909	14.00 in 1920
7.00 in 1912	15.00 in 1923
8.00 in 1914	16.00 in 1926
9.00 in 1916	

Average railway tax accruals per \$1,000 of investment for the four decades since 1890 are shown in the following figures:

1890-1899 \$4.05	1910-1919 \$9.09
1900-1909 5.22	1920-1929 15.52

Again there was a reduction in 1930, still due mainly to reduced railway net earnings and consequently reduced revenue and income taxes. The course of railway taxes per \$1,000 of investment is shown on Chart III.

Dealing still with aggregate railway tax accruals, and still ignoring their relationship to railway earnings, gross and net, where do these taxes go? In Table II, there is shown by states the distribution of rail-

way tax accruals of the Class I lines and their non-operating subsidiaries for the calendar year 1931. These taxes amounted to almost 28 million dollars in the state of New York, to more than 21 million dollars in Illinois, to almost 21 million dollars in New Jersey, to more than 18 million dollars in Ohio, and to more than 12 million dollars in Indiana, California and Pennsylvania.

State and Local Taxes Represent 97% of Railroad Tax Bill

The distribution between the taxes paid to the federal government and the taxes paid to state and local taxing bodies by the Class I railways and their non-operating subsidiaries is shown by years from 1920 in Table III. The figures of taxes paid to state and local governments include relatively small charges paid in Canada, Mexico, etc. Federal taxes have varied materially from year to year, depending upon the corporation income tax rate and the amount of railway net earnings, but most sig-

The Railway Tax Burden

Railroad taxes increased from \$30,000,000 in 1890 to \$304,000,000 in 1931.

Railroad taxes are consuming almost ten cents of every dollar of gross earnings.

Railroad taxes are consuming 52 per cent of the balance of gross earnings left after paying operating expenses and rentals.

For every \$1 of return earned upon railway investment, tax collectors are receiving \$1.09.

Many local governments obtain more than half of their entire tax income from the railroads.

Present inequitable public policies may cause abandonment of large amounts of railroad property. If this property is abandoned, it will no longer pay taxes. These taxes will then have to be assumed by the general taxpayers or governmental activities supported by these taxes will have to be reduced.

Railroad competitors should be placed on the same basis as the railroads. They should be compelled to pay all their costs of rendering service. The railroads now do this. Likewise, railroad competitors should be compelled to bear their fair share of the costs of general government. The railroads now do this—and more.

nificant is the constant increase from 1920 through 1930 in the state and local railway tax accruals. The percentage of total tax accruals represented by state and local tax charges is shown below:

1920	82.2%	1926	71.9%
1921	86.0%	1927	77.2%
1922	82.6%	1928	77.2%
1923	76.7%	1929	77.2%
1924	78.1%	1930	88.3%
1925	75.7%	1931	96.6%

The amount of total tax accruals represented by state and local tax charges thus increased from 82.2 per cent in 1920 to 96.6 per cent in 1931. This was due to the fact that federal taxes fell 79 per cent, state and local taxes increased 26 per cent.

Railroad Taxes

Support Schools

Some light on the disposition of the state and local tax payments made by the railways appears in Table IV. These percentages cannot properly be applied to the totals in Table II as they represent actual payments rather than accruals and include a somewhat different list of railway companies.

The figures in Table IV show the percentage distribution of railway tax payments in 1931 as between school taxes, road and bridge taxes and all other taxes in the states of Arkansas, Iowa, Mississippi, Missouri, Montana, New Mexico and Tennessee. The final column in this table shows weighted averages for these seven states.

As shown in Table IV, the proportion of railway taxes in 1931 which went for school purposes varied from 36 per cent in Missouri to 61 per cent in New Mexico and averaged 48 per cent for the seven states as a group. The proportion of total railway taxes expended upon roads and bridges varied from 5 per cent in New Mexico to 23 per cent in Tennessee and averaged 16 per cent for the seven states as a whole. The proportion of railway taxes used to support the general functions of government varied from 31 per cent in Iowa to 47 per cent in Missouri, and averaged 36 per cent for the seven states combined.

So much for railway tax accruals in the aggregate, their relationship to mileage and investment, their distribution among the various states, their division between the federal and state and local governments, and the

uses to which these tax payments are put in various states. Now, what of the burden which these tax accruals place upon railway earnings, gross and net?

Taxes Almost Ten Cents of Each Dollar of Total Earnings

In 1890 railway tax accruals consumed 2.83 cents of each dollar of total earnings received by the steam lines. In the first nine months of 1932 these tax accruals took 9.36 cents of each dollar of total earnings. The proportion of gross earnings required to pay taxes is shown by years in Table I, and is graphically portrayed in Chart IV. Consuming, as stated, 2.83 per cent of gross earnings in 1890, the proportion of gross earnings represented by railway tax accruals exceeded

3.0 per cent in 1894
4.0 per cent in 1914
5.0 per cent in 1917
6.0 per cent in 1926
7.0 per cent in 1931
9.0 per cent in 1932

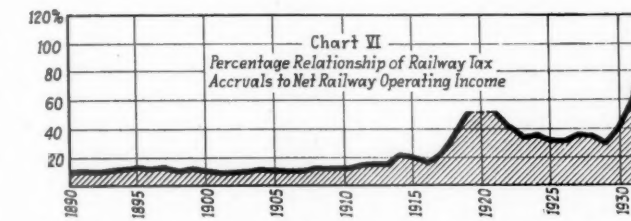
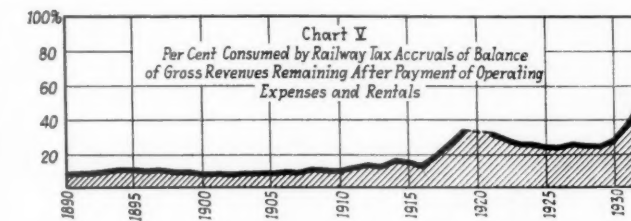
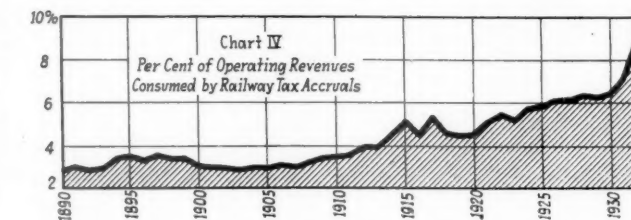
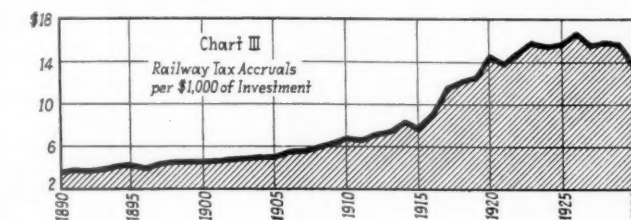
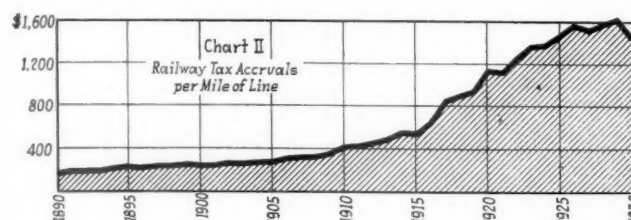
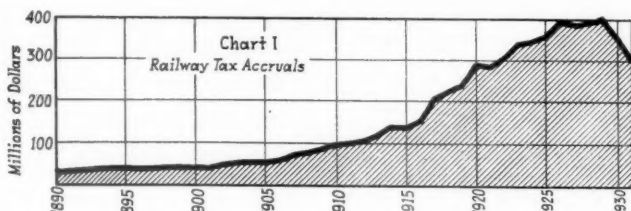
By decades the percentage of gross earnings taken by tax accruals was as follows:

1890-1899	3.21 per cent
1900-1909	2.99 per cent
1910-1919	4.36 per cent
1920-1929	5.69 per cent
1930	6.61 per cent
1931	7.26 per cent
1932 (9 months)	9.36 per cent

From their total earnings the railways pay the wages of their employees, their fuel bills, their bills for materials and supplies used in operation, their other operating expenses, and rentals for equipment and jointly used facilities. This leaves a balance available for taxes and for a return upon the money invested in railway property. Of this balance, taxes consumed 8.28 per cent in 1890 and, as stated in the opening paragraphs, 52.21 per cent in the first nine months of 1932. The proportion which taxes consumed of the balance of railway gross revenues left after the payment of operating expenses and rentals is shown in Table I and also in Chart V. By decades, these percentages were as follows:

1890-1899	9.65 per cent
1900-1909	9.06 per cent
1910-1919	17.14 per cent
1920-1929	27.56 per cent
1930	28.82 per cent
1931	36.65 per cent
1932 (9 months)	52.21 per cent

Finally, a striking comparison may be made between railway tax accruals and net railway operating income—the amount available as a return upon railway property investment. In 1890, railway tax accruals amounted to \$29,806,000 while net railway operating income totaled \$329,978,000. Taxes amounted to 9.03 per cent of net



How Excessive and Inequitable Taxation is Disastrous to the Railways

railway operating income, or, in other words, for every hundred dollars earned on rail investment the tax collectors received \$9.03.

For Every \$1.00 Earned on Property, Tax Collectors Took \$1.09

In the first nine months of 1932, railway tax accruals were \$221,214,000 and net railway operating income was \$202,456,000. Taxes amounted to 109.27 per cent of net railway operating income. For every hundred dollars of net earnings upon railroad property the tax collectors received \$109.27. These figures are shown by years from 1890 in Table I and are likewise portrayed in Chart VI. The amount of taxes paid for every hundred dollars of railway net earnings is shown below:

1890-1899	\$10.68	1930	\$40.48
1900-1909	9.97	1931	57.86
1910-1919	20.69	1932 (9 months)	109.27
1920-1929	38.04		

The figures of railway tax accruals which have been presented previously are conclusive proof of the importance of the railways as taxpayers, both to the various states and to the nation as a whole. If we again narrow the taxing jurisdiction and analyze local units, the vital importance of the railroads' taxes becomes even more apparent.

The total taxes levied in 1931 in the Council Bluffs,

Iowa, School District amounted to \$689,472. The railroads in that district paid \$84,264, or more than 12 per cent of this amount.

In the city of Litchfield, Illinois, taxes in 1931 amounted to \$45,697, exclusive of school taxes. Of this total, railroad taxes represented \$9,418, or 21 per cent. Taxes for the Litchfield community high school were \$45,659, of which \$15,831, or 34 per cent, were paid by the railroads. Taxes collected in North and South Litchfield townships, outside of the city of Litchfield, amounted to \$10,933 in 1931, of which total \$4,262, or 39 per cent, were paid by the railroads traversing those two townships.

Rail Taxation Substantially Supports Local Governments

Railroad taxes represented approximately ten per cent of all taxes levied for 1931 in the city of Gary, Indiana. Likewise in Indiana one railroad alone paid 17 per cent of all taxes levied for 1931 in York township, Benton county; 24 per cent of all taxes in Westchester township, Porter county; 28 per cent of all taxes in Elkhart township, Elkhart county; 29 per cent in Davis township, Starke county; 31 per cent in Kankakee township, Jasper county; 35 per cent in McClelland township, Newton county; 40 per cent in Perry township, Noble county; 43 per cent in York township Elkhart county; New Durham township, La Porte county, and in Elkhart township, Noble county; 45 per cent in Osceola corpora-

TABLE I
Railway Tax Accruals and Their Relationship to Mileage, Investment and Revenues

Year	Railway tax accruals (thousands)	Tax accruals per mile of line	Tax accruals per \$1,000 of investment	Percentage relationship tax accruals to		
				Operating revenues	Revenues less expenses and rentals	Net railway operating income
1890	\$29,806	\$182.19	\$3.66	2.83%	8.28%	9.03%
1891	32,052	190.33	3.80	2.92	8.78	9.63
1892	32,751	190.90	3.77	2.80	8.39	9.16
1893	35,071	198.75	3.92	2.87	8.93	9.80
1894	36,556	204.56	4.03	3.41	10.69	11.97
1895	38,146	211.15	4.14	3.55	10.91	12.25
1896	37,962	207.69	4.00	3.30	10.06	11.19
1897	41,119	222.96	4.23	3.66	11.13	12.52
1898	41,929	224.94	4.30	3.36	9.77	10.82
1899	44,397	234.54	4.46	3.38	9.72	10.77
1900	44,445	229.87	4.33	2.99	8.46	9.24
1901	46,708	236.81	4.49	2.94	8.37	9.13
1902	50,054	247.22	4.70	2.90	8.20	8.94
1903	53,252	256.05	4.85	2.80	8.28	9.02
1904	56,802	265.55	4.93	2.88	8.93	9.80
1905	58,712	269.20	4.91	2.82	8.49	9.27
1906	69,064	307.82	5.56	2.97	8.75	9.59
1907	73,743	320.69	5.66	2.85	8.77	9.62
1908	78,674	336.98	5.95	3.22	11.03	12.39
1909	85,140	359.49	6.26	3.44	10.70	11.98
1910	98,035	407.98	6.73	3.49	10.86	12.18
1911	102,657	420.76	6.58	3.60	12.12	13.79
1912	113,819	461.22	7.11	3.92	13.53	15.65
1913	122,005	488.46	7.35	3.82	13.16	15.15
1914	140,470	557.19	8.19	4.49	17.24	20.84
1915	137,775	542.87	7.90	4.66	16.56	19.84
1916	161,825	637.02	9.07	4.38	13.26	15.29
1917	218,632	862.02	11.77	5.31	18.70	23.00
1918	229,533	905.35	12.09	4.60	26.21	35.52
1919	239,136	944.63	12.39	4.55	34.49	52.66
1920	289,272	1,144.07	14.57	4.58	d	d
1921	283,163	1,127.35	13.93	5.03	32.02	47.10
1922	308,145	1,230.55	14.97	5.43	28.60	40.05
1923	339,577	1,357.10	15.89	5.29	25.83	34.83
1924	347,437	1,388.88	15.66	5.75	26.09	35.29
1925	365,790	1,466.69	15.75	5.86	24.35	32.18
1926	396,538	1,591.64	16.60	6.09	24.39	32.26
1927	383,112	1,537.79	15.67	6.13	26.22	35.54
1928	395,631	1,586.90	15.90	6.37	25.07	33.46
1929	402,698	1,614.46	15.81	6.32	24.18	31.89
1930	353,881	1,420.91	13.58	6.61	28.82	40.48
a1931	304,149	c	c	7.26	36.65	57.86
b1932 (9 mos.)	221,214	c	c	9.36	52.21	109.27

a Class I railways and their nonoperating subsidiaries.

b Class I railways including large switching and terminal companies.

c Comparable information not available.

d No percentage calculated; net railway operating income practically wiped out by maladjustment of rates and costs at end of federal control period.

CLASS I RAILWAYS AND THEIR NON-OPERATING SUBSIDIARIES

[illegible]

pass a substantial part of these costs along to the general taxpayers, including the railroads.

In addition to paying all of their operating costs, the railways contribute heavily, in every taxing district through which their lines pass, to the support of general government. Their commercial highway and waterway competitors make no net contribution whatsoever to the maintenance of general government, as their tax payments fall far short of meeting the actual costs to the general public of providing and maintaining the rights-of-way over which they operate.

This favored treatment accorded to the railways' competitors is injurious to the railways in two ways. It first increases the tax burden borne by the steam lines. In the second place, competitors are given an unfair advantage which results in substantial diversion of traffic from the railways, reducing their ability to pay taxes.

Will Taxes Be Lost on \$10,000,000,000 of Rail Property?

Senator Couzens of Michigan, chairman of the Senate Committee on Interstate Commerce, has predicted that, because of the competition of other forms of transportation, it will be necessary in the future to permanently abandon and tear up \$10,000,000,000 of railroad property. The senator's prediction may come true if our present unfairness in the treatment of the railways and their competitors is not corrected. If railroad property to this amount is abandoned, there will no longer be paid taxes upon it. Furthermore, such abandonments will occur principally on branch lines in rural districts where railway tax payments are relatively most important to local taxing bodies. The abandonment of this railway property will mean either that the taxes now paid upon this property will have to be transferred to the shoulders of the local taxpayers in general, or that the income of the local governments will be reduced by the amount of these taxes, necessitating a corresponding reduction in government activities.

This situation has already received official recognition. Some time ago an application was submitted to the Public Service Commission of Indiana for permission to operate a common carrier truck line in that state, paralleling a branch of the Pennsylvania Railroad. In its decision denying the application of the truck line the Public Service Commission said:

"The Commission wishes to work for the welfare of the community as a whole, and must bear in mind all elements affecting that welfare—especially the subject of taxation, in which every citizen is vitally interested. It must not be forgotten that the benefit derived by a community from taxes paid by the railroads is a matter of no little concern.

"It is very evident that in this case the applicant (the truck line) and the railroad, operating in the same territory, cannot both survive. Which of the two should remain? The community as a whole is better served by the railroad than by the truck. Motor trucks pay no taxes in comparison with railroads. Applicant testifies that it owns three trucks, the taxes on which would not exceed \$75 per year, exclusive of gasoline tax which is used for the upkeep of the highways. For the year 1929 the Pennsylvania Railroad paid in taxes in the counties of Randolph, Jay and Adams the sum of \$179,677.16. The population of these three counties by the 1930 census is 65,662. On a per capita basis, the railroad pays \$2.73 per year for every man, woman and child in these three counties.

"The railroads in this country are paying in taxes approximately one million dollars a day, and this vast amount of money is distributed so uniformly throughout the country that it benefits every man, woman and child.

A part of this money was spent for road building, long before the motor vehicle was used; and these very roads are now being used as the foundation for our present cement or hard-surfaced roads. In other words, part of the tax paid by the railroads has been used against them through the use of the highways by competitive motor operators. As the gross and net revenue of the railroads decreases, the assessment of railroad property will decrease and the amount of taxes paid by the railroads will be reduced. This means but one thing—an increased rate for every tax payer, whose property, in many cases, has already been assessed at its true cash value."

Fair and Equitable Taxation Essential to Nation

One of the most constructive planks which could be adopted in the necessary program of railroad rehabilitation is:

1. Compel the railways' commercial competitors to pay from their own earnings all of the costs which their operation involves. The railways now do this.

2. Compel the railways' commercial competitors to pay, in addition, fair taxes for the support of general government. The railways now do this and more.

3. Reduce all governmental costs—local, state and national. These three proposals, if effected, would have the dual advantage of reducing our national burden of taxation and of distributing it far more equitably than it is now distributed. They would go far toward solving not only the railroad problem but the problems of the United States as well.

Plight of Railway Employees

(Continued from page 790)

of wages and hours enters importantly into the problem of truck competition with the railroads. The railroads are required to pay decent wages and compelled to limit their employees to periods of labor consistent with their workers' rights and the public safety. Obviously, so long as the railroads are met by competition which observes none of these rules, besides paying little or nothing for the use of the highways, the railroads are at a disadvantage which no system of management can overcome."

Less dramatic, perhaps, but none-the-less threatening to railway employment is the competition of labor employed by subsidized water carriers. A recent study, in which was embodied a comparison of railway wages with the wages paid by water carriers, reveals that for the six years, 1925-1930, the average yearly compensation per employee of Class I railways was \$1,685 as against the \$893 received by employees of subsidized carriers on the Mississippi river and its tributaries.

Specific examples could be multiplied but the foregoing serve to point to the contrasting standards of living enjoyed by railway workers on the one hand and the employees of the railroads' subsidized and unregulated competitors on the other.

Transportation today is a highly competitive industry. Railway workers alone among those engaged in the business have attained wages and working conditions which permit the maintenance of a living standard which we like to regard as approaching the American ideal. Unless all transport agencies are placed on an equitable basis the railway worker will find his position undermined. It is as un-American to subject railway labor to this unfair competition as it would be to let down the import tariff barriers to the point where the products of peon labor could enter this country and compete with products of our industrial workers.

Unregulated Transport Destroys Farm and Business Stability

Introduction of unknown charges and practices by unregulated carriers is demoralizing economic structure

NEARLY half a century ago government regulation of railroads was established to provide equality of treatment for shippers and to insure stability in transportation for the benefit of general business. Today, under laws which strictly control one form of transportation, partly control some, and do not control others at all, the very conditions which regulation was designed to correct have returned in even more vicious form.

Ever since the removal, to the material advantage of all actual or potential users of railway transportation, of the conditions described in the first two of three strikingly similar quotations appearing at the bottom of this page, railway rates have been widely publicized; they have been the same, for the same service, to all shippers; they have not been changed except upon due notice. Such a state of affairs is both desirable and satisfactory. So long as railroads were the only important means of land transportation, shippers and receivers of freight, producers, contractors, business men, knew their transportation costs down to the last penny—they were able to price their goods at a figure which would yield a reasonable profit, secure in the knowledge that no favored competitor, receiving a lower rate from some unregulated transportation agency, could undersell them. They had no need to ask exorbitant or unreasonable prices to cover possible sudden and unexpected increases in shipping costs at the whim of unregulated carriers. In short, with railway regulation fulfilling the purposes for which it was originally intended, but without having reached its present day excesses, business—so far as its transportation needs were concerned—could be and was built upon

a firm, stable, unchanging foundation, the nature of which was definitely known to all interested parties.

The last two decades, however, have witnessed the rapid development of the highway motor vehicle as an important competitor of the railways; coincident with this development, as pointed out in the third quotation below, has come a revival of the business demoralization of 50 years ago. Unregulated operation of commercial vehicles for hire over our public highways has reintroduced the system of secret, discriminatory rates, rebates and sudden rate changes which railway regulation was designed to prevent, and, so far as railways were concerned, did prevent. Unregulated truckers have gone even farther, using to an extent which the railroads never dreamed of doing—and which for years the railways have been prohibited from doing—the practice of buying and selling for their own account the goods which they carry, and of transporting products in which they have a speculative interest, thereby creating disastrous spasmodic competition for established producers, sellers and buyers.

Instances of such practices are numerous, and there is entire justification for the California Railroad Commission's assertion that "*A system of unknown transportation charges and practices is being introduced by unregulated carriers into an economic structure which has been built upon a system of known charges and practices with demoralizing results.*"

On the second page of this article appears the actual testimony of a California building material dealer as given to the Railroad Commission of that state during its recent investigation "Into the Operation of the

While the demand for lower rates which had given rise to the Granger legislation, was in due course measurably satisfied (chiefly through intensive competition and improvements in operation), the open resort to discriminatory practices by the carriers became a constant source of agitation and complaint. These discriminations assumed many forms, but none was more glaringly unjust or more obviously destructive of sound economic development than the grant of personal preferences to favored shippers. The published classifications and tariffs were also so adjusted in numerous instances as to inure to the special advantage of particular localities and types of traffic and to the distinct prejudice of other places and commodities. Sharp resentment at the manifest injustice and baleful consequences of the rebating evil and at the subversive industrial tendencies inherent in rate maladjustments was the most potent factor leading to federal legislation.

—From *The Interstate Commerce Commission, Vol. I*, by I. L. Sharfman, professor of economics, University of Michigan.

1887 and 1932

The provisions of the bill are based upon the theory that the paramount evil chargeable against the operation of the transportation system of the United States as now conducted is unjust discrimination between persons, places, commodities or particular descriptions of traffic. The underlying purpose and aim of the measure is the prevention of these discriminations, both by declaring them unlawful and adding to the remedies now available for securing redress and enforcing punishment, and also by requiring the greatest practicable degree of publicity, as to rates, financial operations, and methods of management of the carriers.

—From the report of the Cullom Committee, submitted to the United States Senate, 1886, in connection with a bill which served as the groundwork of the Act to Regulate Commerce, 1887.

The chief cause for the disturbed condition of transportation is the operation of these trucks. . . . Their rates vary from day to day and are not uniform as between shippers or communities. . . . The things they do which regulated carriers can not do may be summarized in part as follows (a) Discriminate between persons and places; (b) Make rebates; (c) Grant secret rates; (d) Change rates at any time without notice. . . . The overwhelming majority of the witnesses for industry, agriculture and business and shippers and receivers of freight were emphatic in their desire to see transportation stabilized. . . . A system of unknown transportation charges and practices is being introduced by unregulated carriers into an economic structure which has been built upon a system of known charges and practices with demoralizing results. . . . The public interest demands that regulation be extended over all or withdrawn from all.

—From the report of the Railroad Commission of the State of California, Decision No. 25243, Case No 3154, October 10, 1932.

Unregulated Trucking Impairs Value of Business Investment

"We distribute in the vicinity of Merced; in Merced county in a retail way south of there. . . . We find considerable difficulty in determining what transportation costs from bay points to jobs, and in that manner find more or less competition that we find hard to compete with. . . . We know the cost of the stuff at the bay, we know the railroad rates; we don't know truck rates. We have ourselves found on one job three different truck rates lower than rail rates.

"Question. Do you find the rates vary from day to day? Answer. Yes.

"Q. Would it be any benefit to you if you were able to deter-

mine precisely what the rates by all transportation companies were? A. Yes.

"Q. Do you believe that trucks operating on the highways for compensation should be under the same regulation as the railroads? A. Yes.

* * *

"Q. Do you believe that unregulated truck competition and the ability of different people to get different rates on lumber from the bay to jobs in your territory has impaired to any extent the value of your investment in business in Merced? A. It has."

—Actual testimony before the California Railroad Commission.

Various Transportation Systems Doing Business in the State of California." That testimony shows as nothing else could do the manner in which uncertain, discriminatory, changeable truck rates interfere with established, reputable businesses. On the following page is published testimony presented to the same commission by an Imperial Valley hay grower, describing the effect on his own business, and on that of other producers and buyers, of the "wildcat" trucker's practice of speculative buying and selling for his individual benefit. The testimony there presented is ample evidence of the harm done to established business by allowing "free-lance" truckers to act as commodity merchants as well as commodity carriers—something which railroads have long been forbidden to do; but the hay grower's statement is supported in the commission's report by testimony of a Los Angeles hay and grain dealer as to the effect of the peddler truck on the hay market in Los Angeles and vicinity which is so startling as to warrant quotation in full because of its revelation of the illegal methods used by unregulated truckers, regardless of the effect of those methods on ethical business:

The present system of trucking out of the Imperial Valley is for a man without any funds whatsoever to go down there and buy a load of hay. That wildcatter gives a check; he has no money in the bank; he runs up here with that load of hay, and he must sell that load of hay (if he can't get one price he has to get another); comes into Los Angeles or whatever bank he has given this check on and he deposits his check before it reaches back to Imperial Valley. One of those fellows—we happen to have hundreds of them at the present time—but one of those people can demoralize the market.

Today the farmers receive two to three dollars a ton less for their commodity, due to this condition, but it is something that he has encouraged himself, and is still encouraging, but it is absolutely bankrupting him.

Produce Buyers Between "Devil and Deep Blue Sea"

Other instances, frequently combining the effect of both forms of interference with orderly business conduct, are no less striking.

E. A. Flemming, chief of the Division of Markets, Ohio State Department of Agriculture, in his bulletin No. 159, dated June 13, 1932, complained of the irregular service offered by unregulated motor trucks and emphasized the necessity for some form of control over highway commerce:

Every large produce market in the country is passing through periods of demoralizing prices, due to unregulated motor truck transportation. These periods occur with such irregularity that they have practically forced the old law of supply and demand out of the picture.

Under the present conditions the problem of maintaining any regular flow of agricultural products from the producer to the consumer is hopeless. There is either a feast or a famine. If it were possible to pass the low price, prevailing on any market, due to heavy unexpected motor truck arrivals, on to the con-

suming public there might be some redeeming features to this picture; however, this is usually impossible as the product forced on to the market suddenly and unexpectedly usually deteriorates before it can pass through the channels of consumption even at prices far below the cost of production. The next day these unregulated trucks bury some other market with an avalanche of products. As a result buyers are continually between the "Devil and the Deep Blue Sea." They don't dare buy when they can, and can't when they want to.

* * *

Ohio's produce markets are in the most demoralized condition they have ever been and this condition will grow worse in place of better unless supplies can be regulated in a more orderly manner than at present and this cannot be accomplished unless reasonable and equitable restrictions are placed on our present unregulated system of motor truck transportation.

Mr. Flemming's assertions as to the chaos produced by the intrusion of trucks into the orderly process of marketing farm products are fully borne out by the statement of a vice-president of the ——— Produce Company, of Los Angeles, that "I have never seen conditions so upset in 40 years as they have been in the last two or three years on account of truck transportation," and by the testimony of W. D. Woodburn, of the Bureau of Market Enforcement, California State Department of Agriculture:

The Bureau of Market Enforcement is charged with the enforcement of two acts. . . . The trucking situation is undermining or just reversing the purpose for which these acts were put into law. Instead of devoting our time adjusting controversies between growers and dealers, that repeatedly arise in all businesses, we are forced to attempt to prosecute unlicensed, unbonded truckers who are operating as produce dealers. . . . I feel that something definite should be done by the authorities to eliminate these wildcat truck operators. . . . Some of them haul for hire; some buy outright; others handle on a consignment basis. We find the majority of the trucks we have trouble with take any other way besides an actual cash payment for the produce. They just say "I will handle for your account;" next they will say "I will give you \$30 a ton," whatever the price is—"I will pay you after I sell them."

The trouble that the department has with the truckers is that the trucker is one day operating as a produce dealer within the meaning of our act, and the next day he is operating as a hauler of some other line of traffic. . . . If we had some way of finding out just what truckers were handling produce and on what basis they were handling produce it would save an untold amount of money to the growers in California.

In an address at Minneapolis, Minn., on September 16, Paul V. Scheunemann, traffic manager of the Monarch Elevator Company, charged that truckers are demoralizing the marketing of agricultural and other products throughout the Northwestern states, and creating an unbearable condition in the field of general merchandising. It is impossible, he contended, for men to buy and sell goods in competition with each other unless transportation charges are the same for all those who deal in

those goods, which is not the case under the chaotic conditions created by the present use of the highways as a place of business. The state which furnishes the highways, Mr. Scheunemann maintained, must protect the public from their wrongful and uneconomic use, which is disorganizing distribution systems to the disadvantage of both producers and consumers.

"Bootleg" Coal "Crucifies" Established Dealers

The vicious results of unregulated trucking are particularly noticeable in the distribution of coal. In the vicinity of the Pennsylvania anthracite fields, men with an idle truck on their hands, or with the few dollars necessary to purchase a second-hand machine, have fallen into the habit of visiting the mines, buying a load of coal from some independent producer, trucking it to points anywhere from 7 to 150 miles distant, and there selling their load for whatever they can get over and above the actual purchase price. Often carrying as much as five tons of coal in a single light truck, in utter disregard of all rules of safety, such unregulated "wild-cat" truckers are not interested in costs of operation, or in the effect of their activities on established producers, dealers and carriers. Their purpose is to buy a load of coal as cheaply as possible and to sell it, anywhere in northern New Jersey, eastern Pennsylvania or southern New York for enough more than the purchase price to equal a day's wage.

So many old trucks are being used in this "business," either regularly or irregularly, that there is hardly a second-hand truck for sale in northern New Jersey; its total volume is illustrated by an estimate presented to the Interstate Commerce Commission by the Reading Company, showing that of all anthracite coal entering some 67 specified points, 144,000 tons, or 20 per cent of the total, moved by truck—and that in 1929, long before the movement had reached its present peak. As to the effect of this "bootleg" coal on established dealers, an officer of one of the largest anthracite producing companies has said "It hurts the railroads; it hurts the local coal dealer, and it crucifies us."

The same situation, the Interstate Commerce Commission found in its investigation of Co-ordination of Motor Transportation, exists in various sections of the Middle West (especially in Illinois, southern Indiana, Iowa and Missouri), in Colorado, and from docks in New England to points a considerable distance inland, the movement being particularly heavy into the St. Louis and Denver areas.

For the relatively short distances indicated the trucks find it possible to undersell the local dealers, whose coal must be yarded before delivery to the consumer and who have overhead expenses which the trucker does not have. The latter may be a contract carrier, a peddler, or a migratory operator. He may solicit orders before buying the coal or he may bring the coal into town for peddling purposes. Prices are not fixed but depend on what can be obtained from the individual customer and the transportation cost is only an element in the entire transaction. Most of the vehicles entering St. Louis were found not to be regular coal trucks but an assortment of types. Trucks not otherwise engaged are sometimes dispatched for loads of coal. Complaints were made as to the overloading and unsafe condition of the vehicles and of short weighing.

The unstable and somewhat irresponsible nature of the trucking operations described makes it difficult for the coal merchant to adapt himself to it or for railroads to cope with this competition by reducing their rates.—*Interstate Commerce Commission, Docket No. 23400.*

Industry and Agriculture Both Suffer

Such instances might be multiplied indefinitely, for every state and almost every business has been affected to some degree by unregulated trucking. Cement companies have found it inadvisable to ship by truck because uncertain and constantly changing rates have made it impossible for them to quote prices with any degree of accuracy or with any knowledge of what their competitors might be quoting. Sugar companies have found their entire distribution schemes upset because of irregularities in rate structures introduced by truck operators. Textile mills, both in New England and in southeastern states, have learned that, where orders for less than truckload lots are involved, trucking companies hold up shipments

What Will the Market Be?

"For about six years I have been growing hay in the valley. At that time there was very little hay, good hay, moving out of the valley, and we worked up a very nice trade, farming a very large acreage, up to about 2,500 acres, for two years. That hay was moved at that time to Los Angeles markets mostly.

"Q. By rail? A. By rail. We used to send out from 14 to as high as 22 cars a day by rail. My highest was in '28, when I moved a little over 22,000 tons out of the valley, and then the trucks started coming in and from that time on our business has gone down faster than we got it up. The condition has been so that we could not—never at any time were we sure of the market, so it became more of a peddling proposition than a market in which to work it out, and I am only handling about 850 acres.

"Q. Do the peddler trucks buy their hay in the valley here? A. Yes.

"Q. What do they add to the price for their transportation charges? A. Mostly deduct. The biggest end of them are men who have a back haul, and come down here and scour around and buy where they can buy the cheapest.

"Q. What commodities do they bring from Los Angeles into the Imperial Valley? A. Lumber, cement, barrels of oil, flour, merchandise of different kinds.

"Q. Do they haul miscellaneous freight of all descriptions? A. Yes, and then they go back, and after they sit around on the market for several days, as sometimes happens, several days, they will start taking off 50 cents or a dollar a ton; I know men, peddlers, that have realized only \$1.50 a ton over the cost price, to save a day's waiting with their truck on the market. That kind of a

condition cannot be good for legitimate business, because men who have their money invested—for instance, take the — Hay Company, that I was dealing with for several years—business got so bad with them on account of the trucks he had to give up his business and consolidate with another one. This firm has around \$300,000 invested in their business; they probably carry \$100,000 or more of merchandise, and trucks stand right in front of them, with nothing invested—probably \$50 or \$75 in a truck—and undersell them from 50 cents to \$2 a ton every day. I used to be able to go out and buy a thousand tons of hay and go to market; today if you are able to buy a hundred tons at a time you have got a big day, because you don't know from one day to the other what the market will be.

"Q. Has that condition affected the prosperity of the Imperial Valley? A. A great deal.

"Q. In what way? A. There is no set price that the farmer can use; no way of telling from one day to the other what he will get for it. Today hay is going out of the valley anywhere from four to seven dollars a ton.

"Q. Does that cover cost of production? A. No, sir, your average cost of production in the valley in '29 and '30 was about \$9.20; a little cheaper today.

"Q. How many acres are devoted to the cultivation of hay in the Imperial Valley, approximately? A. 100,000.

"Q. Is it one of the major industries? A. Yes, sir.

"Q. Would you be in favor of some form of regulation which would stabilize the transportation conditions? A. I certainly would."

—Actual testimony before the California Railroad Commission.

pending receipt of sufficient business to make a complete truckload, deliveries in such cases being as much as a week late. As a result, at least one mill has notified its customers that it cannot assume responsibility for any delay after it has notified a trucker—often located from 10 to 50 miles distant—of the order.

A letter published in the *Railway Age* of May 12 describes the experience of a merchant in San Antonio, Tex., who was unable to fill orders for a certain commodity except by buying from an out-of-state trucker, only to find that the trucker had previously contacted the merchant's own customers and supplied their requirements.

Mason material dealers in Passaic county, N. J., voted to support producers who would stop trucking direct to job locations, because such direct transportation tends to drive the local retailer out of business, with no corresponding benefit to the consumer; while lumber dealers in the Gulf states find that direct trucking encourages irresponsible local competition. There has been much evidence to show that heavy losses have been sustained and extensive frauds perpetrated upon farmers by the wholesale entry of financially irresponsible truck operators into the transportation field.

As to trucking in still other industries, the Interstate Commerce Commission, in the same report quoted above, says:

The trucking of livestock¹ not only lessens the opportunities of the local shipping agencies, whether livestock co-operatives or individual buyers, whose primary function has been that of assembling small lots for carload movement, but also affects the competitive relationships of the markets themselves by introducing new cross-country movements and changing the spread in the cost of reaching various markets.

... an association of commission merchants stressed the disorganizing effects of long-distance truck movements (of fruits and vegetables) on orderly and efficient marketing at the large markets.

Truck rates on cotton² generally lack a firm basis and are frequently adjusted to what the carrier can charge. . . . Trucking has rendered certain local marketing points of less importance than heretofore. The use of railroad bills of lading for banking purposes is an advantage which the trucks do not afford. . . . There are no important service advantages in the trucking of cotton, and in fact certain distinct drawbacks.

The instances of interference with established business by highway trucking outlined above represent a situation which has been likened to that existing before the enactment of railroad regulation. It is, in fact, much worse. Railroads, 50 years ago, were only entering their period of greatest expansion; trucking is already all but universal, affecting every state and every community, every producer and every consumer. Railroads represented a considerable investment, responsibly handled; truck operators are all too often irresponsible, uneducated individuals, with no investment beyond the cost of a second-hand truck—perhaps as little as \$75 or \$100. Railroads served definite territories; truckers can and do move over-night or with the season, to carry on their campaign of disruption of business in another state or another section of the country. If it were once fair, reasonable and advisable to bring railways under some form of government regulation, how much more necessary is it now to bring commercial truck operators under some comparable form of supervision, before they destroy utterly the last vestiges of that transportation stability which railroad

regulation produced, and on which business stability must depend?

Regulations necessary to protect the small shippers are as necessary today as they were more than fifty years ago, when the Granger cases were decided. Unregulated transportation will today as surely drive out of business the small concern as it threatened to do when the Interstate Commerce Act was made a law. . . . The public interest demands the regulation of highway and water carriers.—E. G. Buckland, *president, Railroad Credit Corporation.*

The second basic principle in our rail rate regulation is equality of treatment of all patrons under similar circumstances. This is guaranteed. . . . Every shipper by railroad has the right to feel he is being treated the same as every other shipper. All know this is not so with the shipper by any form of unregulated carrier. He may be in the keenest competition with his neighbor and yet subjected to treatment totally unlike that accorded him. All kinds of secret rebating and discrimination are among the possibilities. As a matter of common justice, every shipper in the country is entitled to know that he is receiving the same treatment as every other shipper, irrespective of the form of transportation he uses, and this can only come with regulation of all.

In the third place, a most desirable thing in every phase of the business world is stability. When the railroads had a monopoly of transportation there was a fair degree of stability of transportation charges. A producer could agree to sell at a delivered price at a distant point six months hence with some degree of assurance as to the charge he would have to pay to transport his product to the agreed place. Not only would he know his own rate but he also knew the rate his competitors, no matter where located, would have to pay to deliver their product to the prospective purchaser and could make an offer accordingly. It is vastly different today. The rail rate is known, as it has been, and is fairly stable, but complete chaos in rates reigns among the airplane, the truck and the water-borne carriers, and this in turn is tending strongly to force instability in the rail rates.

The rail carrier must file with the Interstate Commerce Commission the identical rate it intends to charge for any given service. This rate is public property known to all, and must remain the lawful charge until changed by the railroad in the same public manner. Not so with its competitors; they can change their rate over-night if they choose. No producer today knows the charge his competitor at the same or another place will have to pay the boat or the truck to ship to a common market on the same day or any different day. Under fair regulation of all these forms of carriers, some degree of fixedness of rates can be had and the exact charge known to all, and thus industry could make contracts and do business with some degree of certainty. Nothing could be more helpful to the orderly marketing of all products whether from the mill, mine, or farm, than a fair degree of stability in transportation charges for every form of carriage, and it can only come under government regulation of all the transportation agencies.—Claude R. Porter, *chairman, Interstate Commerce Commission.*

* * *



Unregulated Trucking of "Bootleg" Coal is Reducing the Anthracite Tonnage Moving Out of Reading, Pa.

¹ To markets such as those at Indianapolis, Ind., Oklahoma City, Okla., Sioux City, Iowa, Louisville, Ky., Wichita, Kan., St. Joseph, Mo., Cincinnati, Ohio, Omaha, Neb., Portland, Ore., East St. Louis, Ill., Milwaukee, Wis., and others throughout the Middle West.

² To points such as Savannah, Ga., Mobile, Ala., Houston, Tex., Galveston and Corpus Christi, Los Angeles, Cal., and generally throughout all cotton-growing states.

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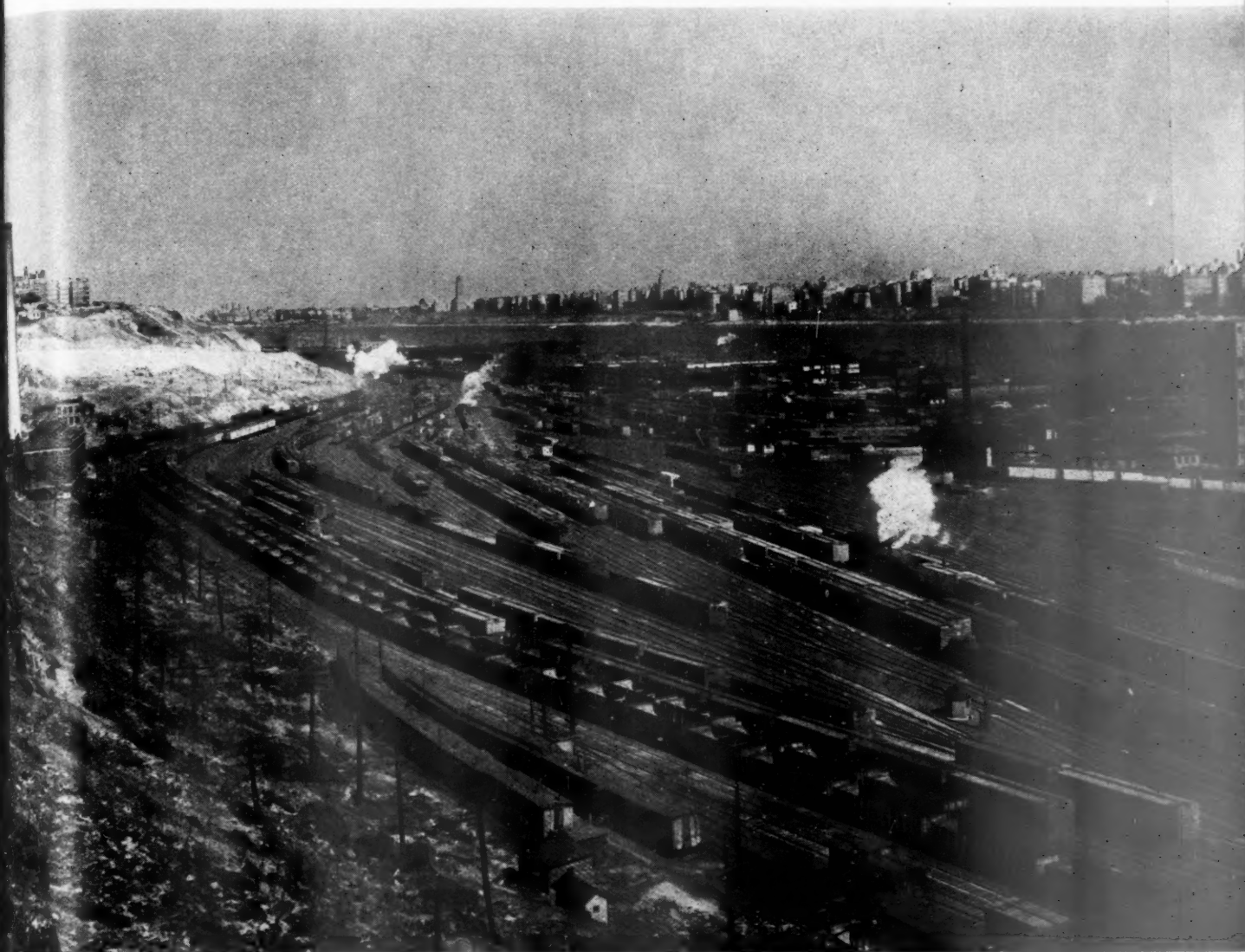
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THE RAILWAY SITUATION — ITS CAUSES

***Regulation as a Cause of Present
Railway Situation - - - 802***

***Railways Are Handicapped in
Meeting Highway Competition - 811***

***Inland Waterways an Unfair
Form of Competition - - 815***

***Intercoastal Shipping Takes
Traffic from Railroads - - 819***

The Subsidized Air Lines - - - 822

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The Interstate Commerce Commission

Left to right: Rear row—Hugh M. Tate, Patrick J. Farrell, Frank McManamy, Claude R. Porter, William E. Lee, Charles D. Mahaffie. Front row—Joseph B. Eastman, Balthasar H. Meyer, Ezra Brainerd, Jr., Clyde B. Aitchison, Ernest I. Lewis.

Regulation as a Cause of Present Railway Situation

How laws and commissions limit earnings and ability to meet competition

THE American people have always been fond of checks and balances in government but in regulating railways this idea has been developed into a "check and double-check" system. In addition to the prohibitions included in the laws, the railways are subject to a multitude of commission regulations and orders having the force of law, and many of the most important decisions of a management may be vetoed by a commission or must await its authorization.

Even with all the regulation it has been able to pile up, the government has seldom felt enough confidence in it not to try to reinforce it with all the competition it could foster, by anti-trust laws and otherwise.

Furthermore, the government has encouraged and subsidized competition by other forms of transportation, which are neither regulated nor taxed on the same basis as the railways. It has even gone into competition with them itself with a barge line.

I. C. C. Responsibility Vague and General

Authority and responsibility are not balanced, however. With all the power wielded by the Interstate Commerce Commission under the present Interstate Commerce Act and 28 related acts, by which it may limit the earnings of the railways and at the same time require them to make expenditures, its responsibility for results is but vague and general. It is directed to so regulate rates as to allow the carriers a fair return, "as nearly as may be," and is also enjoined to "foster and preserve in full vigor both rail and water transportation," but even this is stated as an appendix to a declaration of the policy of Congress to "promote, encourage, and develop water transportation service and facilities," without regulation. The principle of checks and balances also has been disregarded in the way our laws have combined legislative, judicial and administrative functions in one commission.

The need for regulation has come to be generally ac-

cepted but there has grown up in recent years a question whether public interest is best served by a too rigid system and by too much reliance upon government commissions and whether the time has not arrived for restoring a greater degree of the managerial discretion, which should accompany responsibility. For example, President Hoover said two years ago that the railways "have been handicapped by some provisions of the act of 1920" and that "with wider public vision the railways could be strengthened into a greater balance wheel of stability."

Many features of regulation were based on the theory that railways enjoyed a monopoly. This was never quite true, because there has always been water competition and there has always been the keenest kind of competition, except for local traffic, among the railways. No actually monopolistic local utility has been subject to such thorough and varied regulations as are enforced against the rail carriers. Since the advent of new competitors, such as the motor vehicle, the airplane, and the development of new pipe-line and inland waterway services, any features of regulation based on the idea of restraining a monopoly can hardly be called longer necessary, and, unless and until somewhat similar regulation is applied to other transportation, they become not only unfair but impracticable.

Regulation Feeds on Itself

Regulation as it has been practiced constantly breeds more regulation. The greater the authority intrusted to a regulatory body, the more managerial functions it assumes and the more it apparently needs to round out its power and make it effective. And the more power a commission has the more its work increases, the greater the delays involved in its procedure, and the greater its need to depend on subordinates.

Efforts to regulate the rates of the railways, in which the public has a direct interest, gradually led to an

extension of regulation into many phases of their construction, operation, accounting and financing, and recently even to a demand for regulation of individuals or holding companies in their capacity as stockholders. At first the Interstate Commerce Commission was given authority merely to declare a given rate unreasonable or unduly discriminatory, and to enforce safety regulations. This was later extended in 1906 to giving it power to decide what the maximum rate should be for the future, and still later (in 1910) to empowering it to suspend a rate before it became effective, and to prescribe both maximum and minimum rates. Because of controversies as to the extent to which rates were affected by capitalization, the 1920 law provided for a strict regulation of security issues, in spite of the fact that the same law had made the valuation of railway property the fundamental basis for rate-making.

Some element of protection to investors was also included in the conception which led to the adoption of this provision, but most railway security owners now feel that the government has failed to concern itself as much about the return on their investments as it has regarding the price they were to pay for the securities. The fact that the government has been supervising railway accounting for 18 years, and security issues for nearly a dozen years, as well as rates, has not prevented the prices of railway stocks and bonds from falling even more rapidly than many other unregulated securities in the past three years. Nor has it restrained other branches of government from subsidizing other forms of transportation facilities in duplication of the rail investment, partly in the hope of obtaining lower rates than those under regulation.

While the federal government has been spending hundreds of millions to improve rivers to "relieve" the railways of low-grade bulky freight, it has also been aiding the states to build highways which are relieving them of much of the higher-grade freight, and of passengers, while continuing to try to maintain a stable and consistent railroad rate structure by regulation just as if the railroads had no competition.

42 Varieties of Regulation

Most rate regulation now centers in the Interstate Commerce Commission. This is an improvement over the situation which existed before 1920, when it was given power eventually to set aside the action of state authorities that could be shown to be unduly discriminatory against interstate commerce, but the states regulate rates for intrastate traffic as well as many features of service. A list has been compiled of 42 classes of duties performed by the Interstate Commerce Commission.

No definition of a reasonable rate is included in the law, which refers the question to the opinion of the commission, and, although Congress has attempted to lay down a general rule that reasonable rates as a body should be sufficient to provide a fair return, the rule is based upon a valuation and a percentage thereon which are both to be fixed by the commission.

Railways may not build new lines, or extend their

service, or abandon existing lines or service, without the approval of the commission, which may also require a railway to extend its facilities or add to its equipment.

Railway officers and directors may not hold positions with more than one company without the consent of the commission, although such consent is usually given unless it finds some tendency toward possible elimination of competition.

A railway may not acquire control of another without an authorization by the commission including the terms and conditions involved, and the further step of actual consolidation may not be taken without further authorization and unless it is in harmony with a plan prepared by the commission nearly ten years after the law was passed.

Legislation intended to set up regulations to promote safety for both employees and the public has been expanded to authorize the commission to require large expenditures for the general adoption or experimental installation of additional safety appliances.

Bulletin Board Tells the Story

From some comments on the work of the Interstate Commerce Commission one might gain an impression that it consisted of eleven wise men devoting their attention to weighty problems somewhat in the manner of a court. One visit to its offices would dispel that impression. A bulletin board just inside its door usually carries notices of from one to ten hearings or arguments going on simultaneously, many of them devoted to questions which in another business would be settled by executive order or around a conference table. This year a large percentage of the hearings have been devoted to finding out whether some

The maze of restrictions to which the railways are subjected is one of the principal causes of their present difficulties.

The Interstate Commerce Commission, with 42 varieties of regulatory duties to fulfill, has no responsibility for results which is in any sense co-extensive with its widespread authority and thus the statutory right of the railways to a fair return has been lost in the shuffle.

The present system of regulation is manifestly unable to cope with problems arising from the new competition in transportation.

Obsolete railway valuation work has cost to date \$178,000,000.

Consolidations have been delayed by regulatory red tape.

railway earned more than 6 per cent five or ten years ago. Some have been going on for weeks or even months, with interruptions. Others are being held in other cities, in all an average of five or six each working day. In 1931 the commission's organization conducted 1,188 hearings and took approximately 206,407 pages of testimony, as compared with 1,491 hearings and 217,621 pages the year before, and disposed of 2,030 cases on its formal docket. During 1906, the year in which it was given power to fix rates for the future, only 82 formal cases and investigations were instituted. In 1916 there were 878 formal cases and investigations and 854 formal complaints were filed with the commission and the number of complaints gradually increased to 1,693 in 1928. During the depression there has been a reduction which has cut down the standard of living of some lawyers, but the number in 1931 was 1,021 and the numbers of the cases on the commission's formal docket are now above 25,000. Most of these are rate cases and there are thousands of cases on other dockets.

The bulletin board shows also that most of the hearings are conducted by examiners, some by one commissioner and an examiner, and some by divisions of three commissioners, while oral arguments are generally heard by divisions. In the most important cases the entire commission may hear argument. Since 1917 the com-

mission has been authorized by law to delegate cases to divisions, subject to appeal to the full commission, and it has been urging Congress to authorize it to delegate minor matters to single commissioners or subordinates.

Whether there should now be some relaxation of regulation is not primarily a question of the personnel of the commission or of its organization. It is one as to whether any body of men with the highest capacity could possibly decide promptly and intelligently upon all the complicated issues brought before it.

Fair Return Lost in the Shuffle

Aside from the intended restraints of regulation, affirmative benefits intended to be conferred by the Transportation Act of 1920 in various ways have been largely nullified in the process. How much this is to be attributed to the ineptness of the language used by the legislators and how much to the attitude of those charged with its administration, is perhaps a question upon which opinions may differ, but somewhere between them the fair return contemplated by Section 15a of that act has been "lost in the shuffle."

Nearly two years ago, the Interstate Commerce Commission threw up its hands and reported to Congress that though "sound in principle," the rate-making rule of Section 15a was "in certain respects impracticable" and must be revised before it could be made to work satisfactorily. While it defended its own policies by pointing out that "the earnings and credit of the railroads in most sections of the country steadily improved between 1922 and 1929," the commission admitted that "nevertheless, the aggregate earnings in the country as a whole, and in general in the various groups, did not rise to the level contemplated by the statute, even on the basis of our estimates of aggregate value."

While the largest single cause of the railways' present condition is, of course, the decline in general business, they would not have been reduced to their present state if that had been the only factor. The principal cause that has operated upon the railways that has not operated upon business generally has been that of government regulation in the face of unregulated competition.

Over-Regulation a Primary Cause

of Present Railway Conditions

Regulation has affected the railway situation in two ways. One is represented by the limitation of their earnings before the depression began and before outside competition became acute generally. This results mainly from the tendency of public authorities to use freight rates as a leveller to help other businesses and agriculture in time of depression when prices were low, because they could be regulated, and then to hold them down in periods of prosperity on the optimistic theory that an increase in traffic would soon make higher rates unnecessary or even unreasonable. The other is represented by the restrictions which regulation has placed in the way of the efforts of the railways to adapt themselves to such competition both before and after it

became acute, making it more difficult for them to experiment in the adjustment of rates or service to meet the new conditions, usually on the ground that it might disturb relationships or create unjust discrimination, although the primary cause of the discrimination is beyond their control. Theoretically, regulation was to bring about a greater stabilization in transportation than is expected in non-regulated industry. The events of the past decade have proved that the idea has not worked out.

Two Phases of Regulation: Statutes and Policies of Regulatory Boards

Regulation consists of two phases. The first is the government's policy represented by laws which lay down general principles. The second consists of the administration of those laws by commissions and the policies developed within the wide discretion generally allowed them. Therefore, in seeking a remedy for present conditions we should inquire to what extent the effects have been due to the policies inherent in the laws themselves and to what extent they have been due to the way in which the commission has administered them.

The Transportation Act represented a marked change in the policy of federal regulation. This act was intended not only to restore the roads to private operation after 26 months of government operation, but to solve the railway problem under private ownership and management. Whereas the former laws had been almost entirely restrictive and punitive, the new law was intended to introduce a new element of protection for the carriers in the public interest, and to insure adequate transportation. Congress wanted bigger and better railroads, but it was careful at the

Section 15a was designed to stimulate new confidence in railway investments.

Only once has the Interstate Commerce Commission made a specific, though unsuccessful, effort to comply with this fair return rule by ordering large horizontal increases in rates.

The fair return has since been a matter for the future while the general level of railway rates has steadily declined.

The railroads have received no return on recent capital expenditures amounting to six billions of dollars.

The largest net they were able to earn under record-breaking traffic represented a deficiency from the fair return fixed by Congress and the I. C. C.

same time to provide for a bigger and stronger Interstate Commerce Commission. It took pains to safeguard its liberality by putting the roads, as the Supreme Court has said, "more completely than ever under the fostering guardianship and control of the commission," but also imposing some limitations upon the commission.

With a view to stimulating new confidence in railway investments the law provided in Section 15a that in the exercise of its power to prescribe just and reasonable rates the commission should "initiate, modify, establish or adjust such rates" so that the carriers as a whole might earn "as nearly as may be" a fair return on the fair value of their property. For two years the percentage was to be $5\frac{1}{2}$ or 6 per cent, as determined by the commission, after which it was to be fixed by the commission. At the same time, because some roads would be able to earn more than others from rates made to suit the conditions of the average road, a limitation was placed on the earnings of individual roads by the provision that half of any excess earnings of any system in any year above 6 per cent should be "recaptured" by the commission to create a loan fund to aid weak roads.

The commission was also given power to prevent reductions in rates. Regulation was to be substituted for (railway) competition in some respects. Consolidations were to be permitted, but only in harmony with a con-

consolidation plan under which competition was to be preserved "as fully as possible," and provision was made by which some railways might acquire control of others or engage in pooling to some extent upon authorization by the commission. The commission was also to supervise issues of securities, car supply and distribution, joint use of terminals, construction of new lines and abandonment of old lines.

The provisions of the Interstate Commerce Act as it stood on March 1, 1920, when the Transportation Act amendments were included, were adapted to one solution of the railway problem. Some of them were opposed by railways at the time, but if the principal purposes of that act had been carried out the situation would have been far different from what it now is. As time has gone on the laws have ceased to be satisfactory in some respects because of the new conditions created by the rapid development of outside competition, which was not foreseen when they were passed, and the railroad situation is more serious now than it has ever been before. It is, therefore, of interest to consider how the commission administered the laws both before and after the outside competition became so important.

Rate Increase Policy Reversed

Just once, within six months after the Transportation Act became effective, the commission made a specific effort to comply with the fair return rule by ordering large horizontal increases in freight and passenger rates designed to allow a 6 per cent return on a tentative valuation of \$18,900,000,000 as of December 31, 1919. This would have meant a net railway operating income of \$1,134,000,000 a year. The carriers were earning practically no net, and the commission has since said that "there was then little doubt of the ability of industry to bear the increased charges." However, the post-war depression set in about the time the rate increase went into effect on August 26, 1920, and the expected return was never realized.

The commission then tried the reverse process of lowering rates. In 1921 it ordered several important reductions, in addition to some made by the railways, and instituted an investigation as to whether further general reductions might lawfully be required. On May 16, 1922, it decided that they might, although it admitted that the net return was still deficient, and that general business conditions had begun to improve. It ordered a 10 per cent general reduction in freight rates effective on July 1, 1922, saying that "demand is reviving" and "prices tending to stabilize," but that lower rates would give "fuller assurance of realizing the fair return." It even gave an estimate that with a 10 per cent increase in traffic as compared with that of 1921 the net for the next 12 months would exceed the fair return unless rates were reduced. At the same time it reduced the fair return percentage from 6 to 5¾.

It has often been claimed that this cut in rates was necessary to revive business, and the commission has said that the results which followed justified the conclusions then reached, but not until 1926 did the net reach the amount in dollars which the commission and the law had said in 1920 would be a fair return even on the 1919 valuation, and by 1926 the value of the railways had been increased several billions by new investment so that the increased net was still less than 5.75 per cent.

As a matter of fact, business had begun to revive six months before the general reduction in rates in 1922 became effective, and therefore the upturn could not possibly have been caused by the reduction of rates. Freight traffic, as indicated by railway carloadings, had begun in

January, 1922, to exceed that of the corresponding months of the previous year, and the average wholesale price of commodities had turned upward in February. Prices increased gradually until March and April, 1923, and then declined until in December, 1923, when they were substantially the same as in June, 1922, the month before the rates were reduced. In the following year prices went up again but rates did not.

Fair Return Postponed For the Future

Incidentally, in the 1922 decision, the commission took occasion to give its interpretation that "whether carriers may be able to earn an aggregate net railway operating income equal to a fair return must depend to a large extent upon business conditions. Determination of the percentage implies, or carries with it, no guaranty. Read in connection with the provision for recapture of one-half of the excess above 6 per cent it is instead a limitation." It had previously ruled, in 1921, that the fair return "obligation" was not "cumulative," and that its duty under the section "looks to the future."

And that is where the hopes engendered by the passage of 15a began to go glimmering, although the full demonstration of the fact took seven more years. In other words, the commission's position was that it had no duty to try to make up by rates in the future for any deficiency in the past, although it could look forward to prevent an excess, and ever since then the fair return has been in the future, while the general level of rates has steadily declined.

No Return for Six Billion New Investment

In 1923 the railways undertook a large program of capital expenditures for the purpose of increasing their efficiency and improving service to do away with recurrent car shortages. Still relying on the promise held out by Section 15a, investors responded and by the end of 1930 over \$6,000,000,000 had been added to the total railway investment, bringing it up to over \$26,000,000,000. In 1923 net operating income increased to \$974,000,000. In 1926, the year of heaviest freight traffic and largest total earnings, and with further reductions in operating expenses, the net reached \$1,229,000,000, or 4.99 per cent on property investment and 5.56 per cent on the valuation. In 1929 the net was \$1,262,000,000, but only 4.84 per cent on the investment. Five and three-fourths percent on the tentative valuation as of 1919 would have been \$1,086,750,000. Yet with an increased investment the net return has reached that figure only in 1925, 1926, 1928, and 1929, and from 1920 to 1931 averaged only \$959,000,000, or 3.95 per cent on investment and 4.33 per cent on valuation. In other words, the roads received no return on six billions of new investment, and when the depression began late in 1929 it was found that the largest net return they had been able to earn under record-breaking traffic represented a shortage instead of including a reserve for lean years. If they could have retained or regained later the 10 per cent which was lopped off their freight rates in 1922, they would have earned \$3,647,000,000 more than they did earn between July 1, 1922, and December 31, 1930, approximately the amount of their shortage under the 5¾ per cent. Without the reductions effected in the cost of operation, largely as the result of the capital expenditures, the net would have been negligible.

In 1926 the commission denied a 5 per cent advance asked by the western railways which would still have given them less than the fair return, and last year, when all the roads made a last desperate effort to test the efficacy of Section 15a and obtain a rate level from which

they could afford to make reductions, it denied the 15 per cent increase asked. It did, however, allow a small temporary "surcharge," intended to enable them to earn their interest charges.

Although the commission, while the return was still deficient, used freight rate reductions as a method of reviving business, rates had previously not been increased in proportion to prices, even in 1920. When business and prices revived again in the period 1923-1929 it continued to reduce rates. In that period freight rates were relatively lower than commodity prices.

I. C. C. Wants More Flexible Rule

The commission is now advocating a more "flexible" rule as a substitute for the fair return rule, partly because of the difficulty of using as a rate base a value "which apparently depends upon repeated exercises of judgment after the determination and consideration of various elements which constantly fluctuate and to some extent are mutually inconsistent, so that it is impossible to keep the ascertainment current or to forecast accurately its future trend." Another objection, which it describes as even more important, is that "it undertakes to keep net railway operating income at approximately a constant level, without regard to the general industrial conditions which are so quickly and sharply reflected in railroad traffic."

Only the critics of Section 15a have ever placed such an impossible interpretation on it as to say that it was intended to keep earnings at a constant level, regardless of traffic conditions. Congress undoubtedly thought that even "reasonable" rates could be made high enough so that the average annual return should be approximately fair. Obviously, a promise of almost a fair return once in a while would not have been much of an inducement to invest in railways. If Congress meant only that, it sold the railway investors a gold brick in 1920.

New Competition Creates New Problems

Railway earnings had been less than the law intended for a long time before the competition of other carriers had developed to anything like its present extent. Several years ago, however, the outside competition began to demonstrate the necessity for changes either in the laws or in the commission's policies, and the commission has disagreed with the roads almost as much about which rates should be reduced as about those that could be raised.

For example, it had long declined to allow reductions in transcontinental rates on traffic which was deserting the railways for Panama canal lines, because of its interpretation of the long-and-short haul clause. It suspended for a long time extensions of the new freight container service which had been devised as an improved method for handling less-than-carload shipments, and then for about a year required higher rates than proposed by the roads. Under the Denison act it required railways to divert traffic to river barges under reduced joint rail-barge rates.

In 1931 it tried to reduce rates on western grain by about \$20,000,000 a year which it had held reasonable in

earlier years. In orders which became effective as late as December 3, 1931, it prescribed reductions in both East and West in rates on long-haul and bulky traffic, accompanied by increases in rates on short hauls and kinds of traffic particularly adaptable to truck haulage. If the commission's policy was necessary to comply with the laws, then the laws should be revised.

It now appears that the commission has itself recognized that it persisted too long in its efforts to stabilize and systematize the rate structure as if it were dealing with a single monopoly, and in reducing many rates on which traffic was moving freely while seeking to offset this action by permitting increases in other rates which the roads could not collect in the face of subsidized competition. In its report of October, 1931, in the 15 per cent case it showed an appreciation of the fact that too much rigidity in the rate structure may be incompatible with present conditions when it said: "So far as rates are concerned, it is clear that the present structure has developed under principles and theories which gave no thought to the competitive agencies of transportation which now exist," and that "as a result, the rates often open a door to effective competition which might well be closed. It is evident that the traffic departments must give new thought to the rate structure in the light of

existing conditions." But long before that some of the traffic officers had been telling it the same thing.

Recent changes in the commission's attitude, indicated by the fact that in the past year it has allowed many departures from relationships it had previously established to meet truck and barge competition, departures such as it had declined to approve in similar circumstances before, demonstrate that the laws were not solely responsible.

However, the time element is important and the fact that the law permits it to suspend the operation of new rate schedules pending investigation, and in some cases practically requires protracted investigation, indicates that there must be changes in the laws to let the railways decide more of these questions themselves, if rates are to be made flexibly responsive to changing conditions.

The commission has recommended regulation of highway transportation and that consideration be given to regulation of water transportation. It has also this year declined to suspend some of the important experimental rate changes proposed by the railways, and although it has suspended many of them it has later allowed some of them to be made in spite of opposition.

Prevention of unfair discrimination was one of the fundamental objects of regulation and the fact that shippers were able to know what the rates of their competitors were had removed one element of speculation in business. This condition has now been changed to a great extent because the rates by truck and the port-to-port rates of the water lines are not regulated and their operators are enabled to charge one shipper more or less than another and to practice every form of discrimination which led to the demand for regulation of rail rates. To the extent that the commission has refused to permit railways to meet the competition of other carriers where it exists, and where they can without cutting down their other rates, it has fostered the development of those

Several years ago unregulated competition began to demonstrate the necessity for changes in railway regulatory laws or I. C. C. policies.

The commission itself now appears to have recognized that in regulating railway rates it is not dealing with a single monopoly.

But sometimes the commission permits rate changes because of competition and sometimes it does not.

In any event railways find it difficult to meet competition by rate changes that take months to accomplish.

forms of transportation over the rates of which it has as yet no control, without doing anything to remove the discriminations.

What is a Reasonable Rate?

Railways are still free to initiate rates, but whether the rates they initiate ever get beyond the stage of proposals depends upon the commission. It has said itself that "whether a certain rate is reasonable or not often can not be known by the carriers until the commission has passed upon it," and in the last analysis, under our law, a reasonable rate is one which has been established by the decision of a majority of the Interstate Commerce Commission, or of a division thereof, until it has changed its mind, or its majority has been changed, or until its decision has been set aside by a court.

The commission may find a rate unlawful because it is too high or too low, in and of itself, or because it believes it to be too much lower or higher than another rate. While most complaints filed allege both unreasonableness and discrimination, the relation between the rates assailed and others is the point on which most emphasis is placed.

Sometimes the commission recognizes competition as a lawful reason for differences in rates and sometimes it does not.

Obstacles to Prompt Rate Changes

Railways are required to file with the commission and to keep open to public inspection at stations complete schedules of their charges, which may not be changed except after 30 days' notice, although the commission may, in its discretion and for "good cause shown," allow changes on shorter notice. Of late applications for such special permission to make changes, particularly reductions, on less than 30 days' notice, have averaged about a thousand a month, of which perhaps 80 per cent are granted, but the commission has declined to issue a general authorization to make reductions on one day's notice.

After a new rate tariff is filed, the commission, on protest or on its own motion, within the 30 days, may prevent it from becoming effective by suspending it for seven months. If the rates are finally found justified the railways are deprived of revenues which they should have had, or of traffic which they had expected to gain. Thus important readjustments of rates, often worked out after conference with the shippers, are required to run the gauntlet of further delays. It is sometimes suggested that the power of suspension is exercised in a comparatively small number of instances (from one to two hundred a year) and that roads have always been free to propose any rates they desire, but they know that any very important changes are certain to attract protests and are liable to be suspended. It is a little difficult to meet competition by a rate change that takes months to accomplish.

Long-and-Short-Haul Clause

Another way in which railways find their hands tied in meeting competition, particularly that of water lines, is represented by the long-and-short-haul clause, in Section 4 of the act, which declares it unlawful to charge a higher rate for a shorter than for a longer distance over the same line or route in the same direction. This prohibits railways from making rates lower than normal in an effort to obtain a share of traffic in competition with water routes or with shorter rail routes unless they are willing to make corresponding reductions in other rates where it is not necessary. In special cases, after investigation, the commission may and does authorize them to charge less for longer than for shorter distances, but as the law was changed in 1920 it must decide that the

lower rate is not less than reasonably "compensatory" for the service performed so that it will not throw a burden on other traffic, and must wait until the water competition has become effective.

The question of what is a "compensatory" rate, however, is a highly controversial one, not capable of definite proof, since costs depend so much on the volume of traffic, and after long and involved proceedings the result has often been merely a substitution of the judgment of a majority of the commission for that of the railway officers. As a result the commission has for several years denied the railways the opportunity to haul additional traffic in cars that would otherwise move empty, or trains that would otherwise move light, in competition with unregulated water lines operating through the Panama canal, and the intercoastal traffic through the canal increased 637 per cent from 1921 to 1929. This is one reason for the demand in the Mississippi Valley for inland waterway transportation to enable shippers of that section to compete with those having ocean transportation, although the railways, if allowed to do so, could carry additional freight at less cost than that of river barges.

Last March the commission denied an application of the Southern Pacific lines for authority to establish on their Sunset-Gulf ocean-and-rail route reduced rates to compete with the intercoastal steamship lines operating through the Panama canal, between their California terminals and Atlantic seaboard piers, lower than the rates applying to or from intermediate points in California, Arizona, New Mexico, and Texas. The commission found that the business of the canal lines had increased by substantial proportions every year during the past decade, and that the movement over the Sunset-Gulf route had been reduced to an almost negligible point. It held, however, that it had "not been persuaded that, as a whole, the rates proposed by applicants would be reasonably compensatory" and that such rates as it would feel justified in approving as compensatory would be much too high to attract any substantial volume of this traffic.

Commissioner Mahaffie, in a dissenting opinion, took the position that the Sunset-Gulf route ought to be allowed to live if it can and objected to the majority opinion as to what would be a compensatory rate. He said that in other cases the commission had granted "fourth section relief" subject to limitations that the reduced rates should be no lower than 6 mills per ton-mile and 12 cents per car-mile and that, in view of the long hauls involved in this case, it should permit the Sunset-Gulf route to make rates as low as 5 mills per ton-mile and 10 cents per car-mile.

Recently similar questions have arisen on applications by the roads for authority to reduce rates to keep from losing so much traffic to the government and private river barges, as well as those operated by industrial companies for their own freight, and in some cases commission examiners have recommended that they be granted. Formerly the railways were allowed to meet such competition by language in the law making the prohibition apply only "under substantially similar circumstances and conditions."

Rate-Making to Aid Depressed Industry

One of the obstacles to the fulfilment of the promise of Section 15a was the passage by Congress in 1925 of the Hoch-Smith resolution, directing a thorough investigation and possible revision of the railway rate structure, considering, in so far as legally possible, the "conditions which at any given time prevail in our several industries," and, in view of the "existing depression in agriculture,"

to give agricultural products affected by depression "the lowest possible lawful rates compatible with the maintenance of adequate transportation service."

Under this resolution the commission instituted 16 separate inquiries covering important groups of rates, which required the services of a large part of its organization for several years. Some of these have not yet been completed, or are being reconsidered, although many reductions in rates and some upward changes have been prescribed. This required a re-examination of the rate structure in the light of the relation between rates in one industry and those in another, at the same time the commission was struggling with the valuation and supposedly making some effort to make rates to produce a fair return. Although the resolution was not passed until 1925, it referred to the depression of several years before and the necessity for conducting such a broad investigation at one time, in addition to other more routine rate cases, made it extend through the "boom" period and into another and far more acute depression.

After the commission had ordered a decrease in deciduous fruit rates, under this resolution, which it had previously held were not unreasonable, the Supreme Court set its order aside on the ground that the ambiguous language used by Congress to please the farmers had not created any new standard of rate reasonableness. Many railway traffic officers have strongly suspected, however, that the only effect of this decision on the commission's revision of western grain rates, then nearing completion as Part 7 of the Hoch-Smith investigation, was to cause the omission of any reference to the resolution as a reason for the sweeping reductions which the commission prescribed. The grain rate order was set aside by the Supreme Court because the commission had based its order on a "stale" record pertaining to "a different economic era" and had refused to grant a re-hearing.

This combined inquiry into the grain rate structure and the economic condition of agriculture resulted in the taking of over 50,000 pages of testimony at hearings, and the proceedings in one form and another extended from May, 1927, to April, 1931, including three weeks of oral argument before the commission. For the same reason that the grain rate order was enjoined, the commission has had to re-open other parts of its investigation for new evidence.

Rates in a Strait Jacket

Before the commission was given power to prescribe specific or minimum rates it confined itself mainly to making corrections in individual rates or groups of rates by reductions. Under the new powers which it gained in 1920 and under the Hoch-Smith resolution it has been dealing with rates in a more wholesale fashion in single proceedings covering such large groups of rates as all the class rates in, to, and from Eastern, Southern, Southwestern, or Western Trunk Line territory, all rates on grain and grain products or livestock in the western or southern districts, rates on cotton, petroleum products, furniture, etc. In this process of prescribing specific relationships between rates in these complicated proceedings,

and numerous mileage scales in which the rates on single commodities and classes of commodities are made specific percentages of those in other classes of freight throughout a large part of the country, the rate structure has tended to become "frozen" to such an extent that individual rate changes often cannot be obtained without the intolerable delay incident to holding hearings and considering the possible effect on other rates.

Under such a carefully balanced rate structure, if a railroad tries to meet competitive rates locally, there is a liability of disturbing the general balance of rates and affecting in many ways movements wholly unconnected with the local competitive situation. For example, it was pointed out in one proceeding that a movement of 10,000 to 12,000 tons of sugar from Philadelphia to a destination 55 miles distant was now being handled by trucks, which also secure a return load of products from the sugar amounting to 4,000 or 5,000 tons a year. The railroad traffic officers thought at first that they could make rates that would retain this traffic, but were restrained by the fact that if the reduction were made to meet this particular local situation it would probably disrupt the rates on sugar from New York to Allentown, Bethlehem, and other Pennsylvania points and from Baltimore to the Reading district. It might even require rearrangement of the whole sugar rate structure east of Pittsburgh and extend into the New Orleans district and involve even ultimately the Pacific coast rates on sugar.

In making the mileage scales, competition between railroads, between railroads and other carriers, and between markets, was largely ignored, and unless water and highway transportation is to be similarly regulated the railways must start all over again in an effort to re-establish rates that will enable them to retain a reasonable share of the

tonnage. In many cases where the commission has prescribed maximum rates the railways have already felt it necessary to put in lower ones. The mileage scales are so made as to be relatively higher for short hauls than for longer distances, to allow for terminal expense, and they have made it harder for the railways to compete with motor trucks for traffic moving short distances. The commission may allow the roads to reduce their rates, perhaps after a suspension proceeding, but in that event the roads do not get all the revenue the commission counted on when it reduced the long-haul rates, but said it was trying to "preserve" carrier revenues.

On petition of the roads the commission on October 28 re-opened the western class rate case, which also includes interterritorial rates between the East and West. It has also permitted reductions in rates on cotton to New Orleans and other points where truck and barge competition exists without requiring similar reductions elsewhere, and it has recently, after six months of suspension permitted reductions in rates on iron and steel articles from Chicago, St. Louis, and Milwaukee to points in Wisconsin and Minnesota which had been increased in the mileage scales it had previously prescribed, holding that the discriminations thus produced against other points would not be unlawful and that the railways were justified in taking steps

Because of its policy in administering the long-and-short-haul clause the I. C. C. has denied railways the opportunity to haul additional traffic in cars that otherwise move empty or trains that otherwise move light.

Rate-making to aid depressed industries is another recent development.

Under its new powers, acquired since 1920, the I. C. C. has been dealing with rates in wholesale fashion and the rate structure has tended to become "frozen" to such an extent that individual rate changes to meet competition often involve undue complications.

to protect themselves against the loss of traffic.

These rates had formerly been made with reference to water competition on the Great Lakes and the Mississippi river, but the mileage scales had attempted to place them on what the traffic men called a "dry-land" basis about the time the highway competition was becoming effective.

A Striking Example

Another example of a recent change in the attitude of the commission under the new conditions, after it had prevented the railways five years ago from taking action to meet the competition of intercoastal lines, is afforded by a decision announced November 15 in which the commission found justified and vacated its suspension orders as to a reduction proposed by the transcontinental railroads in the rate on canned goods from Pacific coast territory to points as far east as Buffalo and Pittsburgh from 105 to 90 cents per hundred pounds. On November 12, 1927, on a similar proposal, Division 1 of the commission said that "consideration of the record leads to the belief that at the present rate of \$1.05 the transcontinental carriers are laboring under a disadvantage in competing with the intercoastal lines for the traffic in Pacific coast canned goods, but it indicates also that the proposed rate is lower than necessary to meet the competition in a reasonable degree" and the suspended tariffs were ordered cancelled without prejudice to the filing of a rate of 98 cents.

The railroads did not elect to establish the 98-cent rate, expressing the belief that it would not attract sufficient additional traffic to offset the loss of revenue on the traffic that probably would move in any event. Since then, however, there has been a considerable decline in the prices of Pacific coast canned goods and an increase in the water competition resulting from material reductions via water routes through the New York State Barge Canal and the Great Lakes and on the Mississippi river, while the movements from the interior canneries to the ports and the outbound movement from jobbing points has been rapidly shifting from rail to truck transportation, and on April 6 this year the railroads again filed the reduced rates which were suspended by the commission.

This decision is especially interesting because when the same case was decided five years ago the three commissioners on Division 1 apparently had three different ideas as to what the rate should be, because one commissioner, dissenting in parts, said he felt the 90-cent rate had been justified, while another, concurring in part, said there was nothing in the record to justify the suggested rate of 98 cents. Therefore, one commissioner favored a rate of 90 cents, two favored a rate at least as low as 98 cents, and one wanted the \$1.05 rate maintained. Now the full commission believes "that the doubts should be resolved in favor of respondents."

The Obsolete But Expensive Valuation

One of the most expensive and controversial features of the whole regulatory set-up has been the valuation which the commission was directed to make by a law passed in 1913 on its recommendation. It has cost \$178,000,000 so far and is still far from being brought up to date. Only once, in 1920, has it been used specifically as a rate base, because of the greater emphasis placed by the commission on other considerations in its regulation of rates. On the other hand, the commission has made such use of its incomplete valuation figures as it chose to make by "considering" them in particular cases before they had been subjected to court review. It is

also using them directly in enforcing the recapture clause, which it has asked to have repealed, although for several years Congress was persuaded to keep up the appropriations for valuation work on the theory that it would thus bring money into the government treasury.

A complete valuation total for any year has not yet been announced, but the commission has this year finished its original valuations of more than a thousand railroads as of various dates ranging from 1914 to 1921, and has in hand reports on which to bring them up to a comparatively recent date. Studies made public by its Bureau of Valuation indicate totals ranging from \$22,000,000,000 to over \$26,000,000,000. The lower figure, exceeding the total net railway capitalization of \$19,500,000, represents an estimated "original cost," and the higher, which approximates the property investment, is based on the cost of reproduction at "period prices," averaged for several years ending with 1930 (a large deduction being made in both cases for depreciation), plus the value of land and materials and supplies.

It was at first estimated that the valuation would require only two or three years and cost \$2,000,000 or \$3,000,000, but the commission has expended over \$40,000,000 of government money on it and the railways over three times that much. The work had been in progress for six years, and the commission had issued many tentative valuation reports and a few final ones, when Congress in the 1920 law attempted to make valuation almost the keystone of the regulatory process. The tentative valuation of \$18,900,000,000 made for the 1920 rate case was in excess of the net capitalization, which was then \$16,500,000,000, but a little less than the property investment, \$19,500,000,000. No explanation was ever advanced as to just how the tentative valuation was arrived at, although the figures indicate that it represented approximately the cost of reproduction less depreciation at pre-war prices, plus subsequent additions to the property.

For several years there were no aggregate valuation figures except adjustments of the tentative valuation made by adding later investment. After the commission found that even this would justify higher rates, and when it came to the problem of making yearly valuations of any individual roads suspected of prosperity, as required by the recapture clause, it soon lost its taste for a real valuation and tried to substitute a record of approximate investment. This would simplify its work greatly as compared with the method of continually reappraising the properties. A majority of the commissioners also objected strenuously to taking into consideration the cost of replacing the properties at current price levels which the railways contended for in the light of the repeated decisions of the Supreme Court that "present value" is the basis for rate-making. The railroads did not ask for rates high enough to pay a return on the complete reproduction cost, but they did ask that it be given weight in stating the valuation.

In its first recapture decision in 1927, in the case of the St. Louis & O'Fallon Railway, the commission announced its conclusion that valuation for rate-making purposes "approaches more nearly the reasonable and necessary investment in the property than the cost of reproducing it at a particular time." The Supreme Court set this order aside in 1929 and the commission has since been issuing recapture reports on a compromise basis which has not yet reached a court test.

Valuation has imposed a heavy burden on the railroads in furnishing the vast amount of reports, maps, data, etc., required by the commission's orders, and in the time and expense involved in contesting for adequate valuations in proceedings before the commission's or-

ganization, and in general has been evaded rather than used so far as its effect on the rate level is concerned.

Although the I. C. C. has not yet found a way of fixing values which will at the same time satisfy it and the courts, or rates which will produce a fair return, it is still under a mandate to collect half of the excess above 6 per cent that any road may have earned in any year since 1920. It also felt it necessary under the law to try to enforce the recapture clause long before it had completed its valuations and before many contested questions about them had been passed upon by the courts, because the Supreme Court had declined to review the pre-war valuation reports before an attempt was made to use them as the basis for an order.

Jug-Handled Recapture

The commission's Bureau of Valuation has made a rough estimate of \$360,000,000 as the aggregate recapture liability of about half of the railways for one or more years from 1920 to 1930, although the net railway operating income of all the roads is estimated to have fallen short of 5¼ per cent in that time by about \$3,500,000,000. It was particularly detrimental to railway credit that these claims should have begun to assume tangible form at a time when almost any "excess" of former years has now been consumed in later deficits. After the first recapture order was set aside the next recapture decision was not issued until 1930. Since then there have been 138 tentative recapture reports, but only 14 final ones. The plan is especially unfair because the recapture is computed on a yearly basis; the prosperity of one, two or three years is not representative of the general experience of most companies, and claims have been made against some of the smaller railways about to be or actually abandoned.

Instead of operating only against the stronger roads the effect of the recapture plan has fallen heavily upon many of the weaker roads. The commission selected the short lines for its first application of the law, as presenting simpler problems, and such roads are subject to wider fluctuations of traffic than the larger roads. The estimates show no excess earnings for such roads as the Pennsylvania and the Burlington, although they do show excess income for certain years for the St. Louis-San Francisco, the Wabash, and the Seaboard Air Line, which are now in receivership.

Obstacles Tending To Preclude Railway Participation in All Transportation

The unfairness of much of the competition to which the railways have been subjected is emphasized by the prohibitions or other handicaps which have been placed by laws or regulations in the way of their taking advantage of opportunities held out by government to their competitors. Because railways have to some extent been able to engage in water or highway transportation, the public fails to realize the nature or extent of these handicaps. By the Panama Canal Act of 1912 they were prohibited, after July 1, 1914, from having any interest in a carrier operating through the Panama canal or other waterways involving competition with their own rail lines, the question to be determined by the Inter-

state Commerce Commission. Provision was made for possible extension of their service by water other than through the Panama canal, but only upon approval by the commission and a specific finding that such extension would neither exclude, prevent, nor reduce competition. Under this law railways were required to cease operations on the Great Lakes and through the canal, and they are barred from using other inland waterways which the government has canalized and furnished free to their competitors.

Railways Must Feed Traffic to Competitors

Also, under the inland waterways act they are required to feed traffic to their competitors under orders from the Interstate Commerce Commission directing them to join with the barge lines in the establishment of joint rates.

There is no direct prohibition against operation of motor vehicles on the highways by railways, although many are not permitted to do so by their state charters, and the anti-trust laws are often a bar to the acquisition of parallel lines. The handicap consists principally in the fact that the laws regulating the railways contain no reference to highway transportation and under them they are not allowed to make joint through rail-and-motor rates.

The authors of the Transportation Act attached great importance to the provisions intended to bring about a

consolidation of the railways into a limited number of systems, under the strict supervision of the commission, but very few actual consolidations under the law have yet been made. They had hoped that consolidation would provide a way by which the support of the weaker roads could be assumed by the stronger roads, and that a grouping of the roads into fewer

The plan of recapture is especially unfair because it is computed on a yearly basis.

The I. C. C. has selected short lines for its first application of this feature of the law and thus recapture has fallen heavily upon many weaker roads.

Claims have been made against some of the smaller roads about to be or actually abandoned.

Among the larger roads recapture claims are outstanding against three which are now in receivership.

strong well-balanced systems would provide a more efficient system of transportation. The law provided, however, that all consolidations must be in harmony with a plan to be prepared by the commission, and the commission, after having prepared a tentative plan in 1921, found so many complications in its task that it asked Congress to be relieved of that requirement. After Congress had failed to act, the commission published its plan in December, 1929, but it was so unsatisfactory to the eastern railways that they asked to have it changed to provide for only four eastern systems outside of New England instead of five.

Consolidation Law Impractical

The commission last summer modified its plan and it is now expected that greater progress will be made. In many cases the commission has authorized railways to acquire control of others in a manner not involving consolidation and much progress has been made in that way toward a closer integration of systems as well as toward an absorption of short lines. However, the statute has been proved impractical in many ways and attention has been diverted from efforts to improve it by the controversies caused by efforts of some of the railways to acquire practical control of certain strategic railroad properties through holding companies and otherwise while awaiting the slow processes of the commission.

Railways Handicapped in Meeting Highway Competition

In the contest for traffic, the motor carriers, inadequately regulated and taxed, have been given a decisive advantage over the steam roads

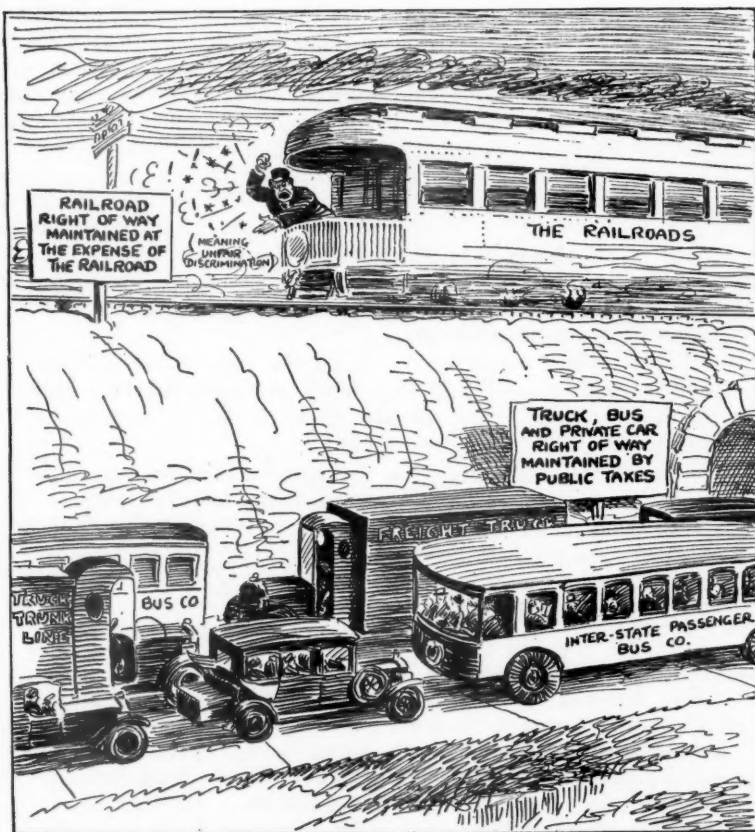
THE American sense of fair play is woefully lacking in the attitude taken by the governments, both state and national, toward the railways and toward commercial motor vehicles operating on the highways in competition with the railways. Despite the fact that they are in the same business and inevitably competitive with each other, the carriers which operate on their own railway lines and the carriers which operate over the public highways are treated by governmental authority, to a large extent, as if they were utterly unlike. If the contest for business between the two types of carriers is likened to a race, then the motor vehicle operators, inadequately regulated and inadequately taxed, may be said to have a head start over the railways which the latter, even by their utmost efforts, cannot hope to overcome.

There is evidence of widespread misconception of the relationship between the railways and their competitors on the highways. To the layman, it may appear that the great railways, so long established and so strongly entrenched, are making mountains out of molehills in evincing concern because of the existence and growth of highway transportation. It may appear inconceivable that the inroads into railway traffic which motor vehicles are making can be sufficiently deep to warrant more than a moment's thought. Let us see whether this conception of the situation is a true one.

Growth of Highway Transport

Passenger car registrations increased from 9,000,000 in 1921 to more than 22,000,000 at the end of 1931. In other words, the number of passenger cars in operation increased two and one-half times during the decade.

Ten years ago there were relatively few motor buses



Courtesy of Chicago Tribune

There Seems to Be Something in What He Says

personal observations of anyone who has traveled over the highways in recent years will provide evidence more convincing than statistics of the vast increase in the number of motor trucks that are being used to carry freight from city to city, in direct competition with the railways.

In short, highway transportation, a substantial part of which is and has been directly in competition with railway passenger and freight trains, is now a vast machine consisting of more than 25,000,000 transportation units.

It is no wonder that this competition has made serious inroads in the traffic of the railways. How serious have the traffic losses of the railways to the highway carriers actually been? In 1927, and again in 1931, the Interstate Commerce Commission launched nation-wide investigations of the situation with respect to the competition between railways and motor vehicles. The commission's reports on those investigations show the progressive stages in the decline of railway traffic caused

in the United States and the majority of those which did exist provided purely local or city transportation. The latest available statistics indicate that there are now 98,900 motor buses in the United States, and that about a third of these operate from city to city in competition with the railways. Bus lines now connect the far corners of the United States, and it is estimated that the number of passengers carried by the inter-city lines in each of the last five years has averaged between 300,000,000 and 400,000,000.

Likewise, in the last decade, motor truck registrations have increased from 1,000,000 to nearly 3,500,000. Of course, the great majority of these motor trucks operate only within city limits for local delivery work, but the

by the continuous spread and growth of motor transportation.

The Railways' Staggering Losses

The effect on the passenger business of the railways brought about by the increase in the number and use of passenger motor vehicles, both commercial and private, is indicated by the decline in the passenger traffic and revenues of the railways. In 1920 the railways carried 1,235,000,000 passengers, whereas by 1926, as shown by the Interstate Commerce Commission's first motor transport report, the number of passengers carried had declined to 860,000,000, a decrease of 30 per cent. In 1929, as shown by the commission's second report, the number of passengers carried had decreased still further to 780,000,000. These decreases in railway business were taking place during a period of steadily improving general business. The combination of depressed general business and continued competition from highway transportation resulted in 1931 in a decline of the railways' passenger business to less than 600,000,000 passengers.

The less-than-carload freight traffic of the railways has declined in much the same way and for much the same reason. In 1921 the railways secured 53,000,000 tons of less-than-carload freight traffic. In 1926, this business had decreased to 39,000,000 tons, and in 1929, there was a further decrease to 36,000,000 tons—exactly the reverse of the trend of business among other industries. In 1931 the less-than-carload freight traffic decreased to less than 23,000,000 tons, a reduction since 1920 of 57 per cent.

But it is not merely in passenger and less-than-carload freight traffic that the railways have lost business to their competitors on the highways. Even long-haul carload freight, for the movement of which the railways have unequalled facilities, has been attracted in increasing volume to motor trucks, due to inequitable conditions of competition and to artificial aids which the motor trucks enjoy. Among the commodities which have been considered as exclusive railroad carload traffic, but which are now being handled in considerable volume by motor truck, are cotton, fruits, vegetables, grain, coal, automobiles, tires, furniture, cement, sand, gravel, petroleum, canned goods, heavy machinery, livestock, sugar and lumber.

The total amount of revenue from freight transportation which the railways have lost to competitive motor trucks has never been determined for the country as a whole. However, exhaustive analyses have been made in certain states, with astonishing results. An investigation made at every railway station in the states of Colorado, Iowa, Kansas, Minnesota, Nebraska, North Dakota and South Dakota, showed that in 1931 motor trucks delivered freight to towns in these states, the revenue from the transportation of which, if handled by railway, would have aggregated \$46,182,936. In the

first six months of 1932 trucks delivered freight to towns in these seven states, the railway revenue on which would have been \$28,809,746.

The losses of railways in all states can be estimated by multiplying the losses in the seven states by the ratio of the national population to the population of these states. On this basis, the railways as a whole—over the entire country—last year lost \$531,103,764 in revenue to competitive motor trucks. This year, they are losing approximately \$662,600,000. The revenue lost last year equalled 17 per cent of the freight revenues actually taken in by the railways during the year. This year, the lost revenue will be an amount equal to about 28 per cent of the entire freight revenues of the railways.

One Road's Losses

The losses in railway traffic suffered by the railways as a whole reflect the losses suffered by the railways individually. Only one example of the effect of highway competition upon a railway need be cited. One railway made a careful investigation to determine the specific amount of passenger and freight traffic that had been

lost by it to the highways in one year. This investigation showed that this one railway lost nearly \$3,500,000 in passenger revenues to the highways, and more than \$4,985,000 in freight revenues on the relatively few commodities specifically studied. The analysis showed that, of the tonnage lost to motor trucks, 35 per cent consisted of lumber, logs and cross-ties; 29 per cent consisted of general merchandise, and 7 per cent consisted of fertilizer. It was not possible to include every kind of commodity in the investigation, but on the basis of facts ascer-

tained, it was estimated that the railway lost not less than \$6,500,000 to competitive motor trucks during one year. This represented 1,335,522 tons, or about 8 per cent of the total tonnage handled by the road, while the loss in revenue was equivalent to 10.6 per cent of the railway's total freight revenues.

A Vital Difference

In the face of these facts, the seriousness of highway competition to the railways cannot be deprecated. If it be granted that the railways have suffered from highway competition, what proof is there that they have just cause to complain of it to the public and to governmental authorities? Have they any more right to complain than any other industry which has suffered a loss of business to competitors? It is claimed that highway competition is unfair to the railways. What are the facts to substantiate this claim?

One vital difference in the conditions under which railways and their highway competitors function lies in their economic characteristics. The railroads are common carriers, with all the responsibilities, obligations and

Unfair Highway Competition

Railways have suffered staggering losses in business to their competitors on the highways.

The complete regulation to which the railways are subject renders them incapable of that quick action in meeting new conditions which they should take to defend themselves against the raids of their competitors.

Motor vehicle operators, on the other hand, are relatively unregulated, free to snipe at the more lucrative kinds of traffic, free to make any rates they see fit, free to discriminate between shippers and communities, and free to begin or cease operations with no thought of the obligations of a public carrier to the public.

The railroads pay their own way and contribute heavily to the support of government.

The highway carriers secure their roadway — the public highway — in return for a low rental charge and are thus relieved of a substantial part of their true costs of operation. This enables them to offer what appears to be a cheap form of transportation, but which instead is simply a form of transportation which saddles part of its operating costs upon the taxpayer.

regulations implied by the term. As common carriers under state and federal regulation, they must handle all traffic offered, with rare exceptions, and at published rates and fares, determined or approved by regulatory bodies, without discrimination or prejudice as to persons, places or commodities. They must meet all requirements as to public safety, convenience and liability, and they must afford continuous, dependable and adequate service at reasonable rates despite all difficulties.

In a word, although a private enterprise, they are public servants. As a private enterprise, the railways are operated at private expense and are founded on private capital. Private enterprise and private capital have had to carry the burden of pioneer work, and this applies to both road and equipment. As a private enterprise, the railways have constructed and maintained both their roadway and equipment at all times. Both roadway and equipment, as private property, are taxable, and carry a heavy burden in the form of taxes for the general support of the government.

The highways with their transportation facilities are essentially different in many respects. The highway itself is a government enterprise, not a private enterprise, and is constructed and maintained at government expense. Except for such meager tolls as have been collected, the expenses involved have been paid by money derived from fees and taxes. The highway is government property and is not taxable. Over the highway, buses and trucks are operated as a commercial enterprise for profit. Little initial capital is required by a bus or truck operation, but the operation of buses and trucks over the highways involves the expenditure of billions of dollars by the government. For the construction and maintenance of the highways, these motor vehicles have only an indirect expense and no direct responsibility.

In a word, this is the essential difference between railway transportation and highway transportation which makes for unfair competition: The railroads are a wholly private enterprise, depending upon revenue from transportation service to meet all operating and maintenance expenses, while motor vehicle operations are a mixture of public ownership as to the highway itself and private enterprise as to facilities operating over the public highways. The railways pay their own way, while their competitors make use of the government-owned and the government-maintained roadway, and meet only such charges for it as may be imposed through fees and taxes.

Highway Transport Escapes a Heavy Burden

What is the effect of this essential difference between railway and highway transportation upon the expenses of their operation? The effect is that highway transportation is almost entirely free from some of the heaviest expenses with which the railways are burdened. In each of the four years from 1927 to 1930, it cost the railways an average of \$1,110,000,000 to maintain and to pay the interest on the investment in their roadway. At the same time, they paid property and income taxes, for the support of the government, amounting on the average to \$378,000,000 a year. Thus, the cost to the railways of their roadway and their taxes has been an average of \$1,488,000,000 a year.

Quite a different picture is presented in the case of motor vehicles. In the period from 1921 to 1930 (except 1922, for which no information is available), motor vehicles as a whole paid in registration fees and gasoline taxes only \$4,051,000,000 of the \$11,142,259,000 spent on highways by state and local authorities, or only 36.3 per cent. It is obvious from these facts that the government has paid out of general tax funds approximately 63.7 per cent of the cost of construction and maintenance of the highways used by motor vehicles.

But that is only part of the story. Commercial motor vehicles operating in competition with the railways have a further advantage. At least 40 to 50 per cent of the taxes on all motor vehicles are paid by private automobiles operated largely on a non-commercial basis, or by commercial motor vehicles operating within city limits and not using the rural highways. Thus, while the railways are meeting all roadway and maintenance costs, and furthermore, paying taxes on their roadway, commercial motor vehicles competitive with the railways are paying only a fraction of the cost of the roadway which they use.

Furthermore, not only are motor vehicles as a whole failing to meet the costs of the highways which they are using, but the motor buses and motor trucks operating in competition with the railways are the particular vehicles which require the construction of heavier roads than would be required by an all-light-vehicles traffic, the extra cost of this heavier construction having been estimated at from \$3,000 to as high as \$10,000 a mile. There are 145,000 miles of roads in this country which have concrete or similar surfaces, so that the cost of building only these roads strong enough to withstand the pounding of heavy buses and trucks has been somewhere between \$450,000,000 and \$1,500,000,000. All the taxes paid annually by all intercity motor buses and by all intercity motor trucks represent only a fraction of the amount necessary to pay only the interest on this tremendous investment. The margin by which intercity motor buses and intercity motor trucks fail to pay the extra cost of heavy highway construction, which they alone make necessary, together with their share of the margin by which all motor vehicles, taken as a whole, fail to meet the total cost of highway construction and maintenance, represent the extent to which commercial motor vehicles are subsidized by the government, and constitute a major basis for the charge that there is distinct unfairness in the competition between railways, which pay all the costs of their roadway and pay taxes thereon, and the commercial motor vehicles which pay, not a tax, but a wholly inadequate rent for their use of the public highways.

How does this element of unfairness actually injure the railways? It injures them in this way: The man who offers to sell something at the lowest price gets the business. In determining the price for their transportation service, the railways must take into consideration their heavy expenses for roadway and taxes, and must fix a price high enough to cover these expenses. But motor buses and trucks have a much lighter burden of expense for roadway and taxes, thanks to the availability of the public highway, and they can, therefore, offer to prospective purchasers of transportation a correspondingly lower rate. This is why highway transportation is taking traffic from the railways which the railways are far better equipped to handle, and this is why the subsidies enjoyed by highway transportation are a matter of vital concern to the railways.

Differences in Regulation

Another outstanding basis for the charge that the competition between railways and motor vehicles is unfair lies in the difference in the governmental regulation to which they are subject. To some extent, the railways are over-regulated, but to a much greater extent, commercial motor vehicles are vastly under-regulated. With respect to the railways, all their operations, all methods employed, all features of their service and all rates which they charge are subject to regulation by state and national authorities. It would be difficult to cite even one aspect of railroad operation which is free from governmental supervision. Comparatively, commercial motor vehicles are as free as the air, under no mandate to

observe the rules of fair dealing with the public to which railways are subject.

Railroads cannot build an additional mile of track without securing governmental authority, but interstate bus operators and most truck operators may start or extend operation when and where they please. The railroads cannot discontinue unprofitable railroad lines without securing permission from regulatory authorities, but unregulated motor vehicle operators may discontinue service overnight, without notice.

The railroads operate no trains with only a single employee, they select and train their employees under rigid rules, they subject their train and engine employees to frequent and thorough physical examination, and they are restricted as to the number of hours which their employees may be worked in operating trains and engines. No such provisions for the safety of the public are made in the rules applying to the operation of commercial motor vehicles.

The railroads must publish and adhere to their rates, they must charge rates which are fair and reasonable and not discriminatory, and they cannot change their rates except on due notice. On the other hand, with few exceptions, motor vehicle operators may charge what they please, they may be discriminatory in their rates, they may change their rates at will, and they may go to any extreme in cutting rates to get business.

There is no regulation whatever of interstate commerce on the highways. There is some regulation of intrastate commerce, fairly complete as to motor buses but relatively rudimentary as to motor trucks. By adopting any one of a number of expedients, commercial motor trucks, with a few exceptions, may operate where they please, when they please, and may charge whatever rates they see fit. It is costly to the railways to operate under the regulation imposed upon them. This cost must be included in the prices which they charge, and it is unfair to allow them to be subjected to the determined competition of inadequately regulated motor vehicles.

Treatment of Employees Contrasted

Consider one more important difference between the railways and their competitors—that as to the treatment of their employees. Under the federal law known as the Railway Labor Act, differences between the railways and their employees regarding working conditions and wages are settled, not by the railways themselves but by the mediation of a permanent govern-

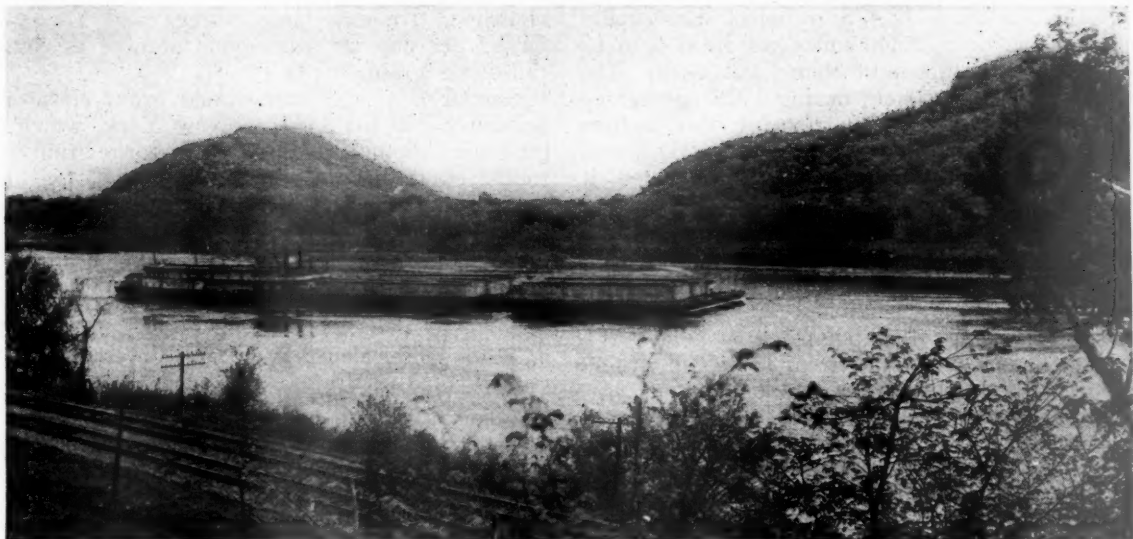
ment board, or by arbitration brought about by that board, or by the decision of a special board appointed for the purpose by the President of the United States. As a result of settlements reached under this federal legislation, the working hours of railway employees are shorter and their wages are higher than those of employees of motor bus and truck lines. That the latter work long hours—far beyond the limits set by the most fundamental rules of safety—and receive unbelievably low wages—amounting in some instances to nothing more than food and lodging—is a matter of record, established in sworn testimony before the Interstate Commerce Commission and other government bodies.

What is the effect upon the competition between railways and motor transportation companies of the difference in the forms of regulation to which they are subject? Free to operate where they will, interstate bus operators and most truck operators hurry from place to place as seasonal traffic appears, skimming the cream of the business and leaving the remainder—and the duty of supplying transportation during slack times—to the railways. Under no control as to the rates they charge for their service, motor vehicle operators undercut railway rates at will to secure an immediate load, knowing full well that the railways cannot take quick retaliatory action. Discrimination between shippers and communities, which the railways must scrupulously avoid, is practiced daily by motor vehicle operators whose sole responsibility is to themselves. Finally, where railway rates must be adequate to cover the high wages they are required to pay their employees, the rates charged by motor truck carriers are affected very little by the wages paid to employees, for the reason that, with unemployment so prevalent, drivers and helpers can be hired for a mere pittance.

Highway transportation, inadequately regulated and inadequately taxed, is an important cause of the present plight of the railways. Highway transportation is a giant which, subjected to reasonable control and required to pay adequately for the use of the public highways, is capable of occupying an important role in the economic development of the country. Uncontrolled or inadequately controlled and under-taxed, as it now is, it will continue to constitute an unfair and damaging competitor of the railways, a heavy financial load upon the government, and a disturbing factor at a time when the restoration of normal business conditions is the nation's most urgent need.



On the Nickel Plate



Inland Waterway Barges Have Free Use of Mississippi River

Inland Waterways an Unfair Form of Competition

Government subsidies, rates devoid of cost considerations,
freedom from regulation constitute
insuperable handicap for roads

THE inland waterways of the United States, excluding the Great Lakes, carried more than 259,995,000 tons of freight in 1930, including 130,668,497 tons moved on rivers, 124,333,964 tons transported on federal canals and connecting channels and 4,993,321 tons shipped on state and private canals. These inland waterways comprise a network of rivers and canals which have been constructed with taxpayers' money and which pay no taxes; their roadway is furnished without charge to carriers and their operation is devoid of the regulation imposed on the railroads. Furthermore, the railroads are prevented by law from making rates that will permit them to compete with these waterways for traffic and are even forced to turn over to the waterways much traffic which the roads themselves can handle.

In facing the inland waterway problem, the railroads are confronted with a system of rivers and canals with a purported aggregate navigable length of 27,406 miles, and which extend through the most productive parts of the country. Of this mileage, 8,896 miles are less than

Salient Features

Inland waterways deprive the railways of traffic which they can handle, more than 160,000 tons of freight being carried by water lines in a year.

Proposed waterways will require enormous expenditures.

Government's venture in barge business a losing proposition. No private interests have agreed to take over the Inland Waterways Corporation.

The total cost of transportation by inland waterways is almost invariably higher than by rail.

Government does things which are illegal if done by a railroad—free storage, low rates, secret agreements.

Railroads are required to make substantial expenditures in connection with waterway development.

6 ft. deep, 8,149 miles are from 6 to 12 ft. deep, and 1,599 miles are more than 12 ft. deep. These waterways include 142 streams tributary to the Atlantic ocean, 52 streams tributary to the Gulf of Mexico, excluding the Mississippi river and its tributaries, 54 streams comprised in the Mississippi river and its tributaries, 1 stream flowing into Canada and 38 tributary to the Pacific ocean. The streams included are those which have been the objects of government improvement and are now, more or less, in ac-

tive use under the corps of engineers of the United States Army, together with streams forming parts of state systems of public works. The commerce of the principal waterways, those over which more than a million tons of traffic move, for 1930 was as shown in the accompanying table.

Aside from several hundred local projects, inland waterway development in the United States is commonly considered as comprising principally the streams of the Mississippi-Ohio system, including the Mississippi, the Missouri, and the Ohio rivers. The total navigable

mileage of this system is 12,475, of which 8,896 miles are less than 6 ft. deep, 3,340 miles are from 6 to 12 ft. deep and 239 miles are more than 12 ft. deep. The traffic moving over this system during 1928 aggregated 79,794,356 tons. The deeper portion of this system alone serves 12 states in the fertile Middle West and when the deepening of other portions is completed, it will serve 24 states. It now reaches as widely separated points as St. Paul, Minn., Kansas City, Mo., Pittsburgh, Pa., Memphis, Tenn., and New Orleans, La. Eventually, it is proposed to extend navigation to Chicago, Ft. Benton, Mont., Chattanooga, Tenn., Little Rock, Ark., and various other points.

Other units in our national system of inland waterways include the Columbia River development in Oregon and Washington, the Tombigbee River improvement in Alabama, the Cumberland River development in Kentucky and Tennessee, and the New York State Barge canal extending from Lake Erie to the Hudson river, a distance of 525 miles. In addition to the waterways that are now in operation, others are proposed by the government, including the Great Lakes-to-the-Gulf waterway, further improvement of the Upper Mississippi river, the Trinity canal from Ft. Worth, Tex., to the Gulf and improvements on a number of other rivers.

On the smaller rivers and streams, the traffic consists largely of sand and gravel, logs, wood, forest products and other bulky freight of comparatively small value and local in nature. Even on the larger rivers, a large part of the traffic commonly consists of sand, gravel, stone, coal, ore, logs and wood. Another considerable part of the river traffic, especially on the Ohio and its tributaries, consists of raw materials and fabricated products moved by industrial corporations in their own equipment and in connection with their own operations.

The character of the river traffic is reflected in the fact that its average value ranges from \$9.27 per ton for bulk freight to \$142.83 per ton for package freight, with an average of \$16.75 per ton for both types. On the Mississippi-Ohio system, the average is \$14.89 per ton and on the Ohio section alone, \$7.13 per ton. In contrast, the average value of the freight moved by the steam railways is \$53.08 per ton, carload traffic averaging \$48.74 per ton and less-than-carload traffic \$200 per ton.

While the waterways serve many cities, the type of service performed is of such character that special inducements are offered shippers to secure traffic. Low rates are quoted and storage facilities are provided at a low charge or without cost. Also, it has been charged that barge lines often depart from published rates by making secret agreements that favor one shipper over another. At Oswego, N. Y., which is served by Lake Ontario, the New York Barge canal, the New York, Ontario & Western, the New York Central and the Delaware, Lackawanna & Western, the state-owned grain elevator, which has cost the taxpayers about \$1,645,000, accords canal-borne grain a preference over railway-borne grain of 1/2 cent to 3/4 cent per bushel for

elevation, five days free storage and 1/120 cent per bushel per day for subsequent storage as compared to rail-borne grain.

Similarly, at the state-owned grain elevator at Gowanus bay in the Port of New York, which has cost the public about \$2,163,000, canal-borne grain is favored to the extent of 7/20 cent per bushel, five days free storage and 3/200 cent per bushel per day for subsequent storage as against rail-borne grain. These inducements to secure traffic are supplemented by compulsory joint rail-water rates wherein the combined rate is less than the all-rail rate.

Developed by Federal Government

This great network of waterways has been made possible by expenditures by the federal and state governments. That these expenditures total vast amounts is shown by the fact that from 1824 to 1929, the federal government alone spent \$1,555,871,000 on river and harbor improvements, about one-half of which, or \$799,368,000, was spent on inland waterways, that is, the Mississippi-Ohio system and other rivers and canals. Excluding \$211,317,000 spent for flood control, the balance of \$588,051,000 represents government expenditures on rivers and canals for navigation purposes. Of this amount, the cost of operation and maintenance totals \$95,978,075, while the balance represents the cost of new work, etc. In addition, it is estimated that \$508,104,210 more will be needed to complete the projects that are now under way.

One of the most outstanding of these developments is the Mississippi-Ohio system upon which the government has already expended \$468,981,924 for construction and maintenance. Besides these federal expenditures, the states have also spent large sums. For example, the Erie canal cost New York State \$346,000,000 from 1817 to 1929. Yet, Frederick S. Greene, superintendent of public works of the state of New York, in a report submitted to former Governor Alfred E. Smith in March, 1926, stated: "In 1925, it cost the state \$4.51 per ton for all freight floated on the canal, regardless of the length of haul. From these figures, it is evident that it would have been cheaper for the state if all the freight carried on the canal had been put in railroad cars and the state had paid the freight bills." In view of this situation, it is not surprising that the state undertook to unload the canal on the federal government, with the result that the Secretary of War was authorized, under the terms of the Rivers and Harbors Act of 1930, to accept this canal as a gift from the state under the condition that it was to be thereafter maintained by the United States.

These expenditures are largely the result of sporadic efforts of various organizations and interests to restore the inland waterways to their former position of importance in the field of transportation. No great progress was made until the World War when enormously increased demands were thrown upon all transportation agencies. This movement has been accentuated by the active support of President Hoover, who, throughout his

Commerce of Principal Waterways

Grand Divisions	Tons
Atlantic Coast:	
Hudson river (Middle and upper)	8,374,128
Delaware river (Philadelphia-Trenton)	5,527,962
Potomac river (below Washington)	1,935,216
James river	1,219,801
Gulf Coast:	
Black Warrior, etc.	1,581,947
Mississippi and Tributaries:	
Mississippi	18,072,983
Allegheny river	3,418,158
Monongahela river	25,657,054
Kanawha river	1,722,351
Ohio river	22,337,434
Tennessee river	2,585,855

Grand Divisions	Tons
Pacific Coast:	
Willamette river (above Portland)	1,707,869
Columbia and Willamette	6,029,172
Hoquiam river	888,573
Snohomish river	1,573,905
Federal canals and connecting channels:	
Cape Cod canal	2,498,943
Coney Island channel	1,023,384
Sabine-Neches canal	11,466,685
Lake Washington ship canal	2,864,831
State and private canals:	
New York State Barge canal	3,605,459

service as secretary of commerce from 1921 to 1928 and later as President of the United States, has been a strong advocate of waterway development. His program for a co-ordinated or integrated system of internal waterways comprises: (1) Deepening the Mississippi river to nine feet throughout, and the principal tributaries to six feet or more; (2) completion of the intracoastal waterway system of canals and channels from Boston to Florida; and (3) the deepening of the St. Lawrence river to make it navigable for ocean-going vessels.

This elaborate waterway program paves the way for large expenditures in the future. For example, the further improvement of the Illinois river as a link in the Great Lakes-to-the-Gulf waterway; additional improvements of the upper Mississippi river, and the deepening of a section of the Missouri river reaching to Sioux City, and other projects authorized in the Rivers and Harbors Act of 1930, are estimated to cost \$350,000,000. Likewise, the St. Lawrence waterway, which in 1926 was estimated to cost \$536,600,000 for the Great Lakes connecting channels, St. Mary's river locks, the Welland canal and the deepening of the St. Lawrence river above Montreal, will cost \$250,000,000 more for improvements in and below Montreal harbor, for deepening and enlarging lake harbors and for approaches and port facilities. The lack of economic justification for this proposal is shown in a study made by Dr. H. G. Moulton, president of the Brookings Institution, in which he estimated that three fully equipped, double track railroads could be built from Chicago to Boston for \$260,000,000, which is about the cost of the waterway to the United States, and that each of these railroads, operating throughout the year to its theoretical maximum capacity, could handle eight times as much freight as the proposed waterway. In other words, the three railways, costing the same amount, could carry 24 times as much freight.

A still more fantastic waterway project is the proposed Trinity canal from Ft. Worth, Tex., to the Gulf, which is estimated to cost \$100,500,000, in addition to \$22,602,200 yearly for maintaining and operating the river channel, locks and dams, while the yearly cost of maintaining and operating floating and terminal equipment would be \$16,875,000 more. This canal would have 33 locks and would be so crooked that it would require from 8 to 10 days for shipments to traverse the distance of 597 miles from Ft. Worth to Galveston, as compared with 24 to 36 hours which the railroads now require for shipments between the same cities.

Government Also Engages in Barge Business

Besides making these huge expenditures to provide waterways over which boats may compete with the railroads, the government has itself engaged in the barge business through the Inland Waterways Corporation which now operates three divisions the lower Mississippi, the upper Mississippi and the Warrior division. The government's total investment in the corporation, including equipment bought or built during the war period and including substantial contributions from other government departments, now exceeds \$20,000,000.

The lower Mississippi division of the Inland Waterways Corporation is the longest of the three, and handles the greatest amount of traffic. It extends from St. Louis to New Orleans, a distance of 1,164 miles. The Warrior division operates between New Orleans and Mobile and up to various rivers to Birmingham near Birmingham, Ala., the whole course, 584 miles in length, being canalized by 17 locks and dams and providing a channel depth of 6 ft. The upper Mississippi division operates over that section of the river between St. Louis and St. Paul, a distance of 687 miles.



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Yes, Yes, Go On

During the period from the inauguration of this service in September, 1918, to the end of 1923, the Mississippi-Warrior barge line operation of the government (then consisting of the lower Mississippi and Warrior river services) were conducted at an annual deficit, which aggregated \$4,786,421 for the whole period. The lower Mississippi service was responsible for \$2,483,935 of this total, while the Warrior river service accounted for the remaining \$2,302,486. The total traffic handled in this period was 3,141,614 tons.

The Inland Waterways Corporation took control in June, 1924, and from 1924 to 1931, inclusive, operated the three divisions at a net profit, on the government's basis of figuring, of only \$206,165 for the eight years. During these eight years, the Warrior and the upper Mississippi divisions have operated at a loss, that of the former aggregating \$1,645,981 and that of the latter \$656,325. The traffic handled during this period was 11,639,036 tons. For the 13 years from 1918 to 1931, the direct operating deficit of the corporation has amounted to \$4,580,256, or 32 cents per ton on the 14,780,650 tons of freight carried. Furthermore, this deficit takes no consideration of the expenditures for channel maintenance which average about \$4,700,000 per year; of interest on the \$135,000,000 invested in the waterway; or of the taxes which the barge lines should pay.

The Inland Waterways Corporation was organized by the government to demonstrate that barge lines can be operated successfully on the Mississippi river and its tributaries. Yet, an analysis of the actual costs of inland waterway transportation shows that it has not and is not justifying itself economically and that the rates that are being charged are not adequate to cover the expenses involved in transportation by water. Because of the expenditures made by the government in establishing and maintaining the waterways, a situation has been created wherein the transportation agencies using the waterways are not required to invest any money in these

facilities and, consequently, can ignore these costs when fixing their rates. In addition, the waterway carriers do not pay taxes as the railways do, neither do they pay adequate rental for their facilities. In other words, the waterway carriers take into consideration only such immediate out-of-pocket items as the cost of boats and barges, wages and direct operating and maintenance costs. In contrast, the railroads must provide and maintain their own rights of way, terminals and other facilities and pay taxes thereon. In addition, they must earn a fair return upon the money invested in them by the public.

In this connection it is important to consider the possibility of private interests taking over the Inland Waterways Corporation which, according to the Act of 1928, was authorized to operate only until private persons, companies or corporations are ready and willing to engage in common-carrier service on such rivers. It is provided that the facilities of the corporation shall not be sold or leased (1) to any carrier by rail or to any person or company directly or indirectly connected with any carrier by rail, or (2) to any person, company or corporation who shall not give satisfactory assurance and agree, as part of the consideration for such sale or lease, that the facilities so sold or leased will be continued in the common-carrier service in a manner substantially similar to the service rendered by the corporation, together with ample security to insure the faithful performance of such agreement. Because the results of the operations of the corporation show that it cannot be considered a sound business venture, no person, company or corporation has yet given or offered to give such assurance.

Rail Transportation Costs Less

This attitude is based on a recognition of the demonstrable fact that the total cost of transportation by inland waterways is almost invariably higher than by rail. Thus, in 1929, the average total cost of carrying a ton of freight 100 miles on the New York State Barge canal was \$1.94, made up of 45 cents as the boatmen's actual charge for transportation (or the direct freight rate) and \$1.49 paid by the public in taxes to cover expenses of operating and maintaining the canal, and interest on the state's investment in it. As contrasted with this total cost of \$1.94, the eastern railroads performed the same service for an average charge of \$1.09, or 43 per cent less than the total canal cost.

Again, in 1928, the average total cost of carrying a ton of freight 100 miles on the Ohio River system was 82.4 cents, made up of 40 cents as the direct cost of transportation and 42.4 cents paid by the public in taxes for interest on government funds invested in improving the river, and for maintaining the dams, wickets and river channel. By way of contrast, on the seven principal railways paralleling the Ohio, the average charge in the same year for carrying a ton of freight 100 miles was 88.3 cents. However, owing to the winding course of the river, for every 100 miles of rail haul the river haul averaged 150 miles. Therefore, for the movement of a ton of freight between two points 100 miles apart by railroad, the average cost of transportation was \$1.236 by river and \$0.883, or almost 30 per cent less, by rail.

Likewise, on the Mississippi river, the average total cost of moving a ton of freight 100 miles in 1928 was 74.5 cents, made up of 40 cents as the direct cost of transportation, and 34.5 cents paid by the public in taxes for interest on the government's investment in river improvements and for maintenance expenses. On the eight principal railways which roughly parallel the river, the average charge in 1928 for carrying a ton of freight 100 miles was \$1.009. Here again, because of the curving course followed by the river, the mileage by river

between various points averages at least one-half again as much as by rail. It thus costs, to haul a ton of freight between these two points, \$1.12 by water and \$1 by railroad.

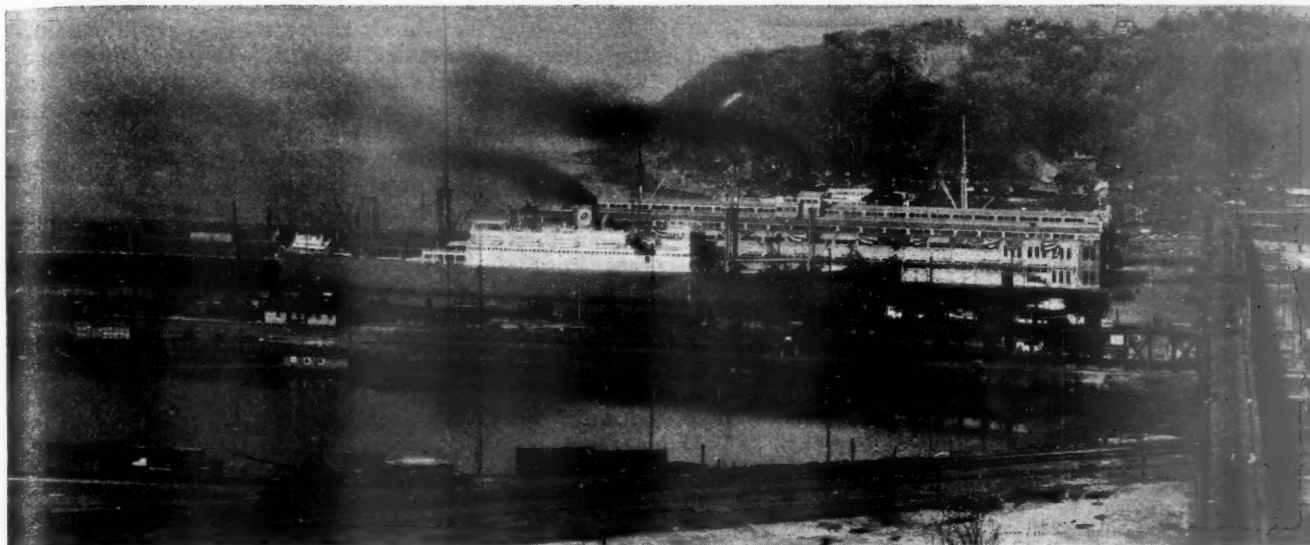
Railroads Cannot Compete With the Public Purse

In spite of these facts, with the government in the transportation business, barge line rates are fixed with a view to diverting business to the barges rather than with a view to meeting all the costs which a private corporation must meet. As a general rule, the Inland Waterways Corporation, for example, carries freight for 80 per cent of what the railroads charge for a like movement between the same ports. This arbitrary differential of 20 per cent was fixed by agencies of the United States government during the war on the assumption that the service rendered by the water carriers is only 80 per cent as valuable as the service rendered by the railroads. Practically no effort was made to determine whether rates of 80 per cent of the rail charges would be adequate to support the water carriers. It is unfair for the government to compete on any such basis with a private enterprise which must pay taxes and must earn a return.

In addition, in operating its barge lines, the government does numerous things which it has prohibited and made illegal when done by a railroad. Almost every action of the railroads is prescribed by law. Their rates, practices, charges, methods of operation, etc., are so governed. The barge lines, on the other hand, are unregulated in all these respects. Still more unfair, the government, at the same time, compels the railroads to co-operate with the barge lines in fixing rates to divert traffic from the railroads to the barge lines. And, as if this was not enough, it extends to the barges aid and assistance for which every citizen engaged in private business must pay.

These facts well illustrate the disadvantages facing the railways in competing with waterways; however, the unfairness of this competition can be demonstrated still more impressively by the fact that the railroads are themselves required to make substantial expenditures in connection with waterway developments, which are entirely unnecessary and non-revenue producing for the roads. For example, in the proposed extension of the Lakes-to-the-Gulf waterway, which involves the deepening and widening of the Calumet river and the Calumet Sag channel near Chicago, the railroads would be required to spend more than \$43,000,000 for the reconstruction of their bridges over this channel. Besides these expenditures, there would be the interference of barge operations with railroad operations to be considered. It has been estimated that the 20,000,000 tons of traffic which may move eventually on this proposed waterway would require in excess of 80 barge movements per day. As each opening of a bridge requires from 10 to 12 minutes it is apparent that the 35 railroad bridges crossing these streams would be open a substantial part of the day and that railroad traffic, which now amounts to 213,000,000 tons per year, or ten times the estimated canal maximum, would be seriously interfered with.

Such, in brief, are the effects of waterway competition on the railways. On the one hand are the waterways, which pay no taxes, on which rates are made only with a view to securing traffic, whose deficits are paid by the government and on which there is no regulation. On the other hand are the railroads, which pay taxes at the rate of a million dollars a day and which are subjected to regulation in nearly all respects. This discriminatory situation is detrimental to the future of railroad transportation, the backbone of the country, and should be corrected. It is equally detrimental to the prosperity of America.



Railway Facilities Greatly Exceed Present Requirements on Seattle Waterfront

Intercoastal Shipping Takes Traffic from Railroads

Governmental restrictions divert traffic from rails to steamships in Panama Canal and coastwise service

IDLE railroad facilities, declining revenues and a large reduction in employment are outstanding results of the flight of traffic from the railroads to coastwise shipping through the Panama Canal since its opening in 1914. Scarcely less serious is the competition offered by steamships operating between the various ports on each of the coasts. The effects of these diversions on the railways is illustrated best by the conditions found today at the western terminals of the transcontinental lines, where extensive dock facilities provided for the efficient handling of commerce originating at or destined to interior points are, since the opening of the Panama Canal, of far greater capacity than now required. Many are practically idle.

The effect of intercoastal competition upon the railways is shown most directly by the enormous increase in tonnage passing through the canal, growing from only 4,888,454 tons of cargo during the fiscal year ending June 30, 1915, to 30,030,232 tons in 1930. Again, as recently as 1921, the volume of eastern iron and steel products moving in transcontinental trade was about equally divided be-

tween the intercoastal carriers and the rail lines; yet, in 1922, the water lines carried four times as much iron and steel tonnage as the railroads; in 1923, five times as much; and in 1930, 20 times as much. In other words, in 1921 the rail lines carried 83,473 tons and the water lines 109 per cent of this amount, while in 1930, the rails handled 38,914 tons and the water lines 1,962 per cent of this amount. The collapse of the Chicago, Milwaukee & St. Paul in 1925 was brought about to no small degree by the Panama Canal, for the diversion of traffic through the canal was set forth as one of the seven causes assigned for the bankruptcy.

That this diversion has been very real is evidenced by the movement of shipments to and from the Orient. Prior to 1920 the volume of commodities handled by this one road enroute to or from the Far East averaged 450,000 tons annually, whereas by 1925 it had declined to only 43,000 tons. On the other hand, the tonnage of this character passing through the canal increased from 220,000 tons in 1920 to 2,192,000 tons in 1925. Still more specifically, before 1920 transcontinental car-

Canal Hurts Railroads

The diversion of traffic through the Panama Canal has resulted in idle railroad facilities, declining revenues and a large reduction in employment.

The railroads are prevented from owning and operating ships, are prohibited from making competitive rates and are required to short-haul themselves in favor of their steamship competitors.

The railroads are unable to secure relief from the Fourth Section of the Act to Regulate Commerce, so that they can reduce their rates and compete with steamships.

Tax exemption for water transportation discriminates against railroads.

The cost of the Panama Canal, including interest at 3 per cent, has been \$540,000,000. Of the \$72,000,000 loaned by the government to shipping lines, \$64,000,000 remains unpaid.

riers shared liberally in the eastbound movement of raw silk from Japan, but since that time this traffic has shown a marked decrease, while the tonnage moving through the canal has increased.

Again, of 11 products moving from the East to the West, the tonnage handled by water in 1926 was five times that carried all-rail. In the same year 41 per cent of all transcontinental freight carried eastbound from California, Nevada, New Mexico, Utah and Arizona moved via the Panama Canal; westbound, the percentage was 43, and this flight to tonnage from the rails has continued since 1926, and is still growing.

Railroads Cannot Stop Diversion

This loss in traffic by the railroads, about 230 ton-miles for every ton of freight moving through the canal, constitutes a condition which they are helpless to correct. They are in the situation of a prizefighter with his hands tied behind him. In the first place, they cannot own and operate ships in competition with others because of the Panama Canal Act which makes it unlawful "from and after July 1, 1914, for any railroad company or other common carrier subject to the Act to Regulate Commerce, to own, lease, operate, control or have any interest whatsoever in any common carrier by water operated through the Panama Canal or elsewhere with which said railroad or other carrier aforesaid does or may compete for traffic or any vessel carrying freight or passengers upon said water route or elsewhere with which said railroad or other carrier aforesaid does or may compete for traffic."

In addition to being unable to operate ships, the railroads are prohibited from making competitive rates for the movement of this traffic over their own rails. Prior to the war most of the railroads, as a regular procedure, made lower rates to Pacific coast terminals to meet coast-wise water competition than those made to intermountain interior points. During the war the commission deprived the carriers of most of their authority to do this, and since then, with minor exceptions, has refused relief of this character. As a result, the roads have been forced to give up much traffic and have been compelled to make great sacrifices of revenues on other traffic to prevent added diversions.

Rail Rates Cannot Be Adjusted

This arbitrary regulation of rates has constituted a gross discrimination against the carriers in favor of the steamship companies. The law compels the rail carriers to short-haul themselves in favor of their steamship competitors. It requires the commission to fix minimum differentials in favor of water competitors, on request. It prohibits the railroads from making rates competitive with water lines under the Fourth Section of the Act to Regulate Commerce, except on permission of the commission, which it has generally refused to grant. It requires them to publish and maintain rate schedules and will not permit them to vary therefrom except by change of tariffs after 30 days' notice, whereas their water line competitors are under no such restrictions, but may change their rates at will, and are compelled to publish and maintain maximum rates only, from which they are at liberty to depart at will.

In addition to these legal restrictions on the initiative of the railways, the Interstate Commerce Commission has frequently adjusted rail rates to favor water lines in their drive for competitive traffic, while in other instances refusing to permit the railroads to make rates competitive with the water lines. On the other hand, the steamship lines are not only free to adjust their rates to meet changing conditions, but are free to oppose any of the railroads' rate proposals that they believe detrimental to their operations.

The character of this steamship competition is best illustrated by the chaotic condition of water rates during recent years. After the war, when the government was not only loaning money to the water lines, but was also selling ships to them at a fraction of their cost, the increase in the number of ships seeking business led to reckless bidding for traffic. The effects of cut-throat rates became so acute that in self-defense some of the more important shipping companies found it necessary to join forces by organizing conferences. The first of these conferences, the United States Intercoastal Conference, was organized in 1920, but lasted only two years, when another water rate war broke out. A new conference, composed of 13 members, was formed in 1923, but by 1925 this number had dwindled to 7, and the conference died a natural death. In 1927, a third conference was organized, but it likewise ended in failure and was abandoned in 1931. After a year of open warfare, the intercoastal lines finally declared a truce by organizing a new conference effective March 1, 1932.

The inability of the railroads to lower their rates so that they can secure business now going to steamship companies is not only a handicap upon them but is a hardship upon industry, for the producers in the interior of the country are being excluded from access to the Pacific coast markets. Industries in this large area, which formerly supplied much of the demand on the Pacific coast, are moving to the Atlantic or Gulf seaboard, and the railroads leading from the Middle West to the Pacific coast are being deprived of the westbound tonnage from these plants. This traffic, of which the western lines are thus deprived, is the business which is of the greatest value to the transcontinental rail lines, because from it these lines earn the entire rate instead of receiving only a part of the rate, as when they undertake to compete with the water lines in a transcontinental haul from eastern territory.

The transcontinental railways contend that it is not a case of water transportation or no water transportation, as the canal steamship lines maintain, but that for the railways to get a fair share of the transcontinental traffic is feasible, reasonable and desirable as a measure of public policy. They also contend that such a division of traffic will best promote the development of the country, and that a reasonable division of it is more certain under fair competition than otherwise.

Relief Denied

Because of these facts the railroads have continually asked for relief from Section Four, the long-and-short haul clause, of the Act to Regulate Commerce, in order that they might establish lower rates from the Middle West to Pacific coast points without reducing the rates in effect to interior points. This Fourth Section controversy has been a sectional fight between the jobbers in the inter-mountain area about Spokane, Wash., Salt Lake City, Utah, Reno, Nev., and Phoenix, Ariz., allied with the intercoastal steamship lines, on the one hand, and the transcontinental railways and their employees and the producers in the middle western states, on the other hand. These jobbers and the intercoastal steamships are contending for the abrogation of the power of the commission to grant the rail carriers a right which has long been recognized elsewhere throughout the world. Since the war, the commission has, however, steadfastly refused to relieve the carriers from the strict application of the clause.

In addition to being precluded from engaging in water transportation and prevented from making competitive rates, the railroads are subjected to still further discrimination. An interesting illustration is afforded at Los Angeles, Cal., where efforts are being made to force the

three transcontinental railroads to spend a large sum for the construction of a union passenger terminal, while at the same time Los Angeles furnishes their steamship competitors with large terminals at Los Angeles Harbor, built on city property on which no taxes are paid and for which only a small rental is charged.

Another example of discrimination is presented in a comparison of the taxes paid by the two forms of transportation, the railroads paying large sums to support schools and other public enterprises, while the steamship companies pay little or no taxes while benefiting from the taxes paid by the railroads. Under the California law steamships, other than those operated by a railroad, are exempt from taxation, and the only tax paid by a steamship operator is the comparatively small item on office fixtures and the federal corporation income tax paid by all industries. The terminal facilities used by steamships, which are usually municipally or state owned, are also tax exempt. If California had treated the Southern Pacific as liberally as it does its steamship competitors, the road would have earned \$1.85 per share more than it did in 1930, or the railroad could have handled its traffic for nearly \$7,000,000 less than was charged.

Both railways and steamships are operated to earn profits for their owners. For the railroads, the rate of return to the owners must be based upon the capital invested in the entire property, including terminals, and charges for service must be made in consideration of this investment. In the case of steamship companies, many of the terminal facilities are furnished by local or national governments and little or no interest is charged the users. For illustration, during the 18 years of its operation the Panama Canal has earned \$142,000,000, a return of only about 2 per cent on the investment, or only about half the cost to the government. As a result, charges for service can be made exceptionally low.

Coastwise Competition

These effects of intercoastal competition are duplicated in the competition of ships operating along both the Atlantic and the Pacific coasts. On the Atlantic coast, tramp steamers carry freight from port to port between points as far north as Portland, Me., and as far south as Miami, Fla., and similarly on the Pacific coast between Seattle, Wash., Portland, Ore., and San Francisco, Cal., and Los Angeles. On both coasts the water rates are lower than the rail rates, largely because the government provides many of the facilities and furnishes money for financing the ships while the railroads are prohibited from lowering their rates so that they can compete for the traffic. Because of the lower water rates, the railroads are forced to relinquish much traffic to the ships which they (the railways) are amply prepared themselves to handle. For ten years the railroads on the Pacific coast have endeavored to secure Fourth Section relief from the commission so that they could place lower rates in effect, but it was not until last spring that the commission permitted them to lower their rates and compete for this port-to-port business.

The effects of this port-to-port competition may be illustrated by what has happened at Miami, Fla. More than \$27,600,000 of public money has been spent in the last few years in developing a coastal canal and providing port facilities in Florida, including \$9,000,000 at Miami. To these improvements the Florida East Coast railway has contributed \$82,745 in special assessments in addition to its payments in the general tax levy. Yet these expenditures have been made for the sole purpose of diverting traffic from the railway and with marked success. This is shown by the fact that in 1930 the boat lines handled 153 per cent as much tonnage in and out

of Miami as the railway, as compared with only 26 per cent as recently as 1922. Expressed in another way, the tonnage of the boat lines was 300 per cent greater in 1930 than in 1922, while that of the Florida East Coast was 30 per cent less.

Again, while this railway handled 95 per cent as much freight traffic in 1930 as in 1919, its tonnage in and out of Miami, its principal port, was only 58.7 per cent as much, in spite of the fact that the growth in population in the Miami area in this period was very much greater than elsewhere along this line. Furthermore, the tonnage figures do not tell the whole story for the traffic which has been diverted to the water consists primarily of such commodities as iron and steel, manufactured products, grain and grain products and petroleum and its products, which normally represent the most profitable tonnage for the railways. The tonnage handled by the Florida East Coast, therefore, in the latter years has consisted to an increasing extent of the lower rate commodities.

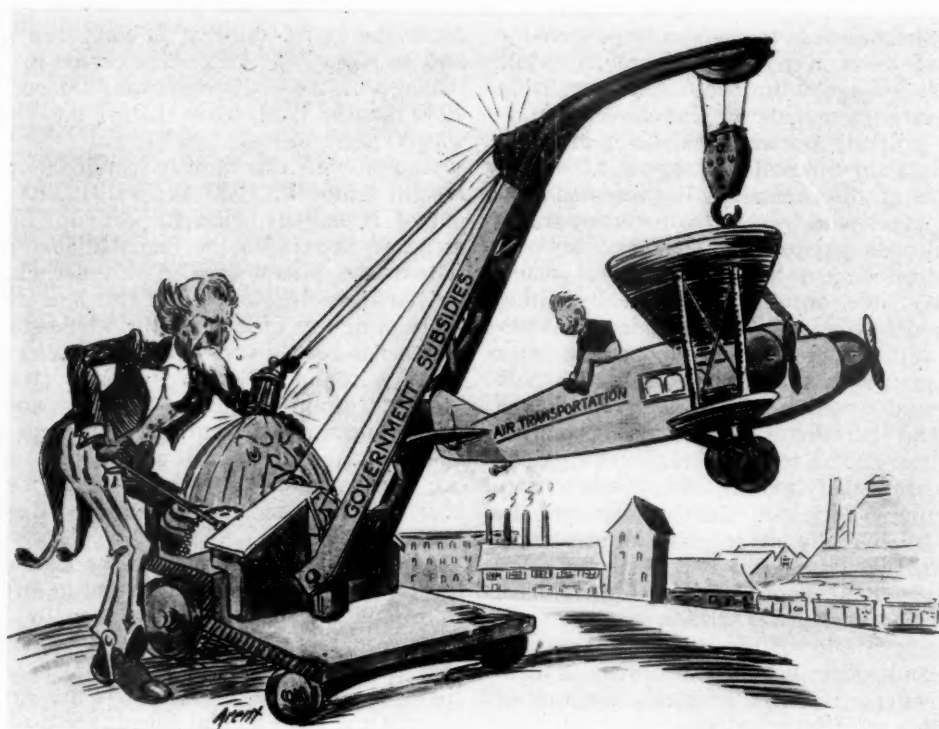
One of the reasons which has enabled the steamship lines to compete so effectively and to offer such low rates to Miami has been the exceptionally low rentals that are charged by the city for the municipal terminals which cost the public more than \$9,000,000. By reason of these low rentals, the terminals are far from self-supporting and large annual deficits are made up by taxation.

Both coastwise and canal competition have been fostered by the government in various other ways. After the war it disposed of 3,400 ships at one-sixth of their cost and on a partial payment basis, and thus placed the companies acquiring them at a distinct advantage in competing for traffic. In 1920 it also sponsored a liberal loan policy for ship building, under which citizens are enabled to borrow from a revolving fund, administered by the Shipping Board, sums equal to three-fourths of the cost of new construction. In June, 1931, the volume of such loans authorized since 1920 amounted to \$145,000,000. As a result 75 ocean liners have been either built or reconstructed by 25 shipping companies.

While this governmental encouragement is of no small magnitude, it is insignificant in contrast to the vast sums of money invested by the government in canals and harbors and paid for by the citizens of the United States. According to Colonel Harry Burgess, former governor of the Canal Zone, the cost up to 1929 of the Panama Canal and the Panama Railroad, including interest at 3 per cent compounded on the original investment, was \$540,000,000. In addition, the improvement of existing seacoast harbors and channels totaled \$291,163,226 to 1929, according to the War Department Appropriation bill for 1931, which also shows that the further amount required to complete the projects, as of June 30, 1929, was \$72,413,510.

In addition, the government has loaned approximately \$72,000,000 to the shipping lines in order to stimulate the construction of vessels in American shipyards, of which amount \$64,000,000 remains unpaid. In addition, private lines owe the government \$36,000,000 on vessels purchased, while the total indebtedness of ocean-shipping companies to the government at the end of 1931 amounted to \$125,700,000.

In intercoastal competition, the railroads are confronted with rates which they are prevented, by law, from meeting; they are likewise prevented from engaging in water transportation; furthermore, the government has been extending very definite financial aid to these shipping companies. The restrictions and regulations placed upon the railroads and not upon the operators of ships create a problem over which the railroads have no control. The solution lies elsewhere, as is indicated later in this issue.



What
Keeps
It Up

The Subsidized Air Lines

Governmental generosity equips and finances airplane operators and thereby makes possible competition with railways

EVEN an infant industry, when backed by the resources of the government, is capable of serious competition with an older business. The railroads have found this to be true in the brief history of the airplane lines. No transportation system would view with equanimity the loss of a half million passengers, nine million pounds of mail and a large volume of express traffic to a competitor, but that is what the railroads lost last year to the air transport companies. The growth of the air lines and their traffic is a matter of concern to the railways, and the reasons for this growth should be of concern to the public.

Subsidies Make the Difference

In two words—governmental subsidy—are found the reasons why the air lines, carrying mail, express and passengers, are now operating nearly five times as many airplanes as they had in service five years ago; why the length of the routes they cover is nearly four times as great as it was five years ago; why the volume of express traffic they carried—taken from the railways—increased from 3,000 lb. in 1926 to more than 1,000,000 lb. in 1931, and is still increasing; why the volume of domestic mail carried—taken from the railways—increased from 700,000 lb. in 1926 to more than 9,000,000 lb. in 1931; and why the number of passengers carried—taken from the railways—increased from 5,700 in 1926 to 522,300 in 1931, and is now greater than ever before. In the same two words—governmental subsidy—is found the reason why the air lines, in a period of depressed general business, are this year enjoying comparative prosperity.

Lending a helping hand to the infant air transport industry has been an important activity of the federal and local governments since the inception of air transportation, and this has been in marked contrast to certain aspects of the government's latter-day treatment of the railways. To an extent it is justifiable as a means of contributing to national safety in the event of war, but the government has not stopped here. Instead, it has organized its subsidies to the air lines so that they are directly encouraged, and, in fact, enabled to compete with other forms of transportation for passenger and express traffic.

The Rich Uncle of the Air Lines

It is easy to understand why the air lines have been successful in winning passenger and mail traffic from the railways. The Post Office department is the rich uncle of the air lines. It encourages the public to use air mail instead of ordinary mail by keeping air mail postage rates at a level well below that necessary to make the service pay its way, thus assisting in the diversion of mail traffic from the railways to the air lines.

The policy of the Post Office department is also to encourage air lines to develop passenger traffic. It does this by paying to the companies holding air mail contracts something in addition to the basic rate of pay for mail transportation, when facilities are provided by the air lines for carrying passengers in mail planes. This bonus, which is over and above the amount received by the air lines for the transportation of mail, enables them to reduce their rates and thereby offer an inducement to

the public to travel by air. The air lines began to attract passenger traffic in substantial volume only when they reduced their passenger rates approximately to the level of railroad and Pullman fares. The air lines found it possible to reduce their passenger rates only after the Post Office department, under an act of Congress, put into effect its system of bonuses to passenger-carrying air mail lines.

How Mail Lines Are Paid

The system whereby the Post Office department subsidizes the air lines lies in its formula for determining rates of pay to the air mail carriers. First, it pays a base rate, ranging from 50 cents to 80 cents per mile, which is determined by the weight-carrying capacity and the space capacity of the planes operated over each route. Additional payments are made for night flying, for flying over difficult terrain, for flying over routes where fog frequently is encountered, and for flying airplanes equipped with one-way and two-way radio communication systems. On top of all this, the Post Office department pays still further sums to the lines using airplanes which are equipped to carry passengers, and the greater the passenger-carrying capacity of the equipment, the greater is the Post Office department bonus. Mail planes with a capacity of from 2 to 5 passengers receive a bonus of 1½ cents per mile, while the bonuses paid to mail planes with greater passenger capacity are as follows: Six to 9 passengers, 3 cents per mile; 10 to 19 passengers, 4½ cents per mile; 20 to 29 passengers, 6 cents per mile; 30 passengers and over, 7½ cents per mile. In addition, when the operation of airplanes equipped with two or more motors is necessitated by mail or passenger loads, the Post Office department helps the air lines along to the extent of an additional bonus amounting to 13 cents per mile.

As a result of this generosity to air lines and of its policy of encouraging the transportation of passengers by airplane, the Post Office department loses large sums each year on its air mail service. In the fiscal year which ended on June 30, 1930, the Post Office department received for the transportation of air mail \$5,272,616.45. Its air mail expenses, including payments to contractors for the transportation of mail by airplane, were \$15,168,778.58, an excess of expenditures over revenues of \$9,896,162.13. In the fiscal year which ended on June 30, 1931, the beneficence of the Post Office department toward the air lines resulted in an even greater deficit. Revenues from air mail during the year were \$6,210,344.86, while the expenditures—mainly payments to the air lines—aggregated \$17,593,410, leaving an excess of expenditures over revenues of \$11,383,065.14. In spite of the recent increase in air mail postage rates, the current air mail deficit is probably still greater, since the latest reports indicate a reduction of about 34 per cent in the volume of air mail transported this year, as compared to last year.

Because of the availability of this government subsidy, the air lines are able to attract travelers with rates

approximately the same as railroad and Pullman rates. Because of this subsidy, the air lines are able to charge each passenger less than the cost of carrying him, the balance of the fare which each air passenger should pay being made up by the government. Because of this subsidy, the air lines were able to attract more than 500,000 passengers last year—most of whom otherwise would not have traveled by what is, in its very nature, the most expensive form of transportation, but would have traveled instead by rail. The same thing is true of mail which travels by air—air mail postage paying only about a third of the cost of air mail service, and taxpayers making up the deficit.

Aid From the Department of Commerce

But the Post Office department is not the only arm of the government which is spending the money of taxpayers for the development of commercial air transport. To the Department of Commerce as much as to the Post Office department do the air lines look for aid. This assistance is forthcoming in many ways. As its share of the program under which the government is assisting

the air lines to compete with other forms of transportation, the Department of Commerce, among other things, has provided radio communication and weather-reporting systems, installed and maintained airway beacons to the number of more than 1,600, established 385 lighted intermediate landing fields and assisted the air lines in persuading municipal governments to construct 636 airports for the use of the air transport companies.

In the development of air navigation facilities, designed in the main for the use of the air lines, the Department of Commerce has expended in each year since 1928 from \$3,000,000 to nearly \$9,000,000. This public money is expended

to provide facilities without which the airlines could not exist and which they would otherwise have to provide for themselves. To this extent, these amounts are direct subsidies to the air lines, and when they are added to the excessive payments of the Post Office department to the mail carrying lines, the total is impressive. For example, in 1931, the air lines were subsidized to the extent of over \$19,000,000—more than \$11,000,000 from the Post Office department, representing the excess of payments to the air lines over the air mail revenue, and \$8,000,000 spent by the Department of Commerce for air navigation aids.

No industry in the United States depends more upon governmental subsidy for its continued existence than does the air transport industry. With the Department of Commerce and municipalities providing virtually all of the facilities for commercial airplane operation which the air lines require, except the airplanes and airplane hangars themselves, and with the Post Office department paying the air lines far more for the transportation of air mail than it receives in air mail postage, it is fair to say that the air lines not only do not stand upon their own feet but scarcely stand even upon their own property.

The Air Transport Subsidies

Air transportation is able to attract passengers with offers of "railroad rates" for only one reason: Subsidies from the government.

The Post Office Department subsidizes the air mail lines to the extent of more than \$10,000,000 a year, and gives them bonuses for carrying passengers in mail planes.

The Department of Commerce does its bit by subsidizing the air lines with aids to air navigation, essential to air transportation, which cost as much as \$9,000,000 a year.

Government subsidy is what keeps the airplanes up and enables them to win passengers from the railways with offers of "cheap" air transportation.

Uncle Sam's Express Business

WHEN the express business was in its infancy, 90 years ago, the federal government found in it a strong competitor for the carriage of personal and business letters. Today the situation has been reversed, and the express companies—conceived, organized, financed and developed by individual initiative for the performance of a service auxiliary to that of the railroads—are finding in the government a powerful competitor in the transportation of general merchandise.

That the federal government may properly possess a monopoly in the carriage of letters is not open to any particular doubt; that it should burden its taxpayers with huge deficits in seeking to extend that monopoly to the transportation of merchandise may be very seriously questioned.

Growth of the Parcel Post

As established on January 1, 1913, nearly 75 years after the first express companies had become a recognized part of the national transportation scheme, the parcel post was originally confined to transmission of packages weighing not more than 11 pounds and with a combined length and girth of not over 72 inches. The weight limit was twice extended, however, before the service was a year old, and subsequent additional extensions, set forth in detail in Table I, have so enlarged the scope of the service that it is now possible to mail to all parts of the country packages weighing as much as 70 pounds with a combined length and girth of 100 inches.

Obviously, acceptance in the mails of packages of any size inevitably creates some competition between the Post Office Department and private agencies operated solely for the handling of similar consignments. With the maximum size of mailable packages already larger than the average size of express packages (about 60 lb.), and with the express companies both able and willing to handle packages smaller than the average size of those shipped by parcel post (about 5¼ lbs.), it is equally obvious that such competition must cut into the revenues of the express companies to a very considerable extent.

Absolute proof that such competition does exist lies in the aggressive business solicitation policy inaugurated by the Post Office Department itself some two years ago, and vigorously carried out ever since. Radio broadcasting and window displays featuring merchandise mailable by parcel post have been widely used as integral parts of this campaign; questionnaires concerning use of parcel post have been sent

**Direct government competition
in transportation of merchandise
is costing taxpayers about
\$30,000,000 a year**

to prospective shippers, and circulars outlining the advantages of the services have been distributed to homes and business houses by letter carriers. Local postmasters have been urged aggressively to promote use of parcel post, and to assist in such activities a special corps of parcel post solicitors has been employed by the Post Office Department. Such promotion activities are proper enough when paid for by a private business; when carried on by the government at the expense of the taxpayers and to the detriment of a privately-owned taxpaying business, merely to increase the use of a government service which has always been a financial burden to the people as a whole, their propriety becomes decidedly questionable.

The express-parcel post competition is further aggravated by the matter of rates, and especially by the new scale of parcel post rates put into effect on October 1, 1932, when charges for distances of 300 miles and less were increased and those for more than 300 miles were reduced from one to 47 cents per parcel. Parcel post rates for short distances had, generally speaking, been lower than corresponding express rates; when they were increased it was by an amount insufficient to wipe out the difference between the two scales. Over the longer distances, where competition with express service has been most severe and parcel post rates have been approximately equal to or higher than express rates, the reductions were sufficiently large to bring parcel post rates well below most comparable express charges.

Effect of Service Extensions and Rate Changes

The 1931 service extension and the 1932 rate changes were proposed—although not put into effect—at the same time, ostensibly to reduce the operating deficit reported annually by the parcel post service. But in making such an attempt to reduce that deficit, the Post Office Department was obviously taking no chances on losing any traffic to the express companies with which it competes. The service extension tended to increase average size and total volume of mailable packages by increasing their maximum size. The rate increases tended to increase total revenues from short-haul business but without inflating individual charges sufficiently to introduce the risk of driving business to express competitors or reducing total volume. The rate decreases were clearly intended to increase volume by reducing long-haul rates sufficiently to attract business away from express and draw it to the government-operated parcel post.

Merchandise by Mail

Acceptance in the mails of packages larger than the average size of those moving by express creates "competition" and "diversion of traffic" from the privately-owned, taxpaying express companies to the government-owned, tax-supported parcel post.

The parcel post reduces express revenues, returns less to the railroads, and costs the country's taxpayers, directly or indirectly, a sum estimated at \$30,000,000 a year.

The government may properly possess a monopoly in the carriage of letters, which is a service for the transmission of information; there is no valid reason for attempting to extend that monopoly, at the expense of private business, to include the transportation of merchandise, which is a service of a distinctly different sort.

If these various measures were not deliberately designed to increase the department's ability to compete with express companies, the fact that they would unquestionably put it in a more favorable position with respect to such competition was recognized and admitted by no lesser authorities than the Postmaster General and the Interstate Commerce Commission. The former stated that the ability of his department to handle larger packages, and to charge lower rates over longer distances, would bring in most of the anticipated increase in revenue, estimating the amount thus to be realized

Table I—Growth of Parcel Post Service

Effective Date	Weight Limit	Size Limit (Length and girth combined)	Zones
1901	4 lbs.	.....	Books only
January 1, 1913	11 lbs.	72 in.	All zones
August 15, 1913	20 lbs.	.....	Zones 1 and 2
January 1, 1914	20 lbs.	.....	All zones
	50 lbs.	.....	Zones 1 and 2
July 10, 1915	.....	84 in.	All zones
March 15, 1918	70 lbs.	.....	Zones 1 to 3, inclusive
	50 lbs.	.....	Zones 4 to 8, inclusive
August 1, 1931	70 lbs.	100 in.	All zones

at \$3,500,000 annually—a figure which represents a serious loss of revenue for the express companies but constitutes little more than the proverbial "drop in the bucket" in proportion to the annual parcel post deficit. The commission, in approving the various changes, said "As to the fact of competition and diversion of traffic (from the express companies) there is no doubt," but made no effort whatever to protect the express companies from such "competition and diversion."

The decision of the Interstate Commerce Commission authorizing the extension of parcel post service and the changes in parcel post rates—from which the statement concerning competition and diversion of traffic was quoted—was reached in the face of arguments presented by the express companies stressing the facts that the parcel post was already in competition with express companies; that it diverted traffic from express service, and that extension of its maximum limits would tend to increase such competition and diversion. The express

ing the weight limits except a general desire to increase the total scope of the parcel post—and such an increase could, of course, become effective only at the expense of the express companies.

Unquestionably, such tax-subsidized competition as the parcel post is a serious matter to the Railway Express Agency, which is owned by the railways, and the South-eastern Express Company. Any loss in express traffic is naturally reflected in an increase in the unit cost of handling the remaining traffic, eventually requiring an increase in rates, which increase tends to a further diversion of traffic to the lower-rated, tax-supported parcel post. Such a procedure, continued indefinitely, would mean the eventual destruction of the privately-owned, taxpaying express business, yet the only protection afforded is futile appeal to a government commission, of the type which recognizes "competition and diversion" without taking any of the obvious steps to prevent them.

The Railways' Interest

That the problem is a serious one to the railways as well is clearly evident from a simple comparison of their gross revenues from express and from all mail. In only one of the last 12 years, as shown in Table II, has

Table III—Annual Operating Deficits, Post Office Department and Parcel Post Service

Fiscal Year Ending	Total Operating Deficit, Post Office Department	Operating Deficit, Parcel Post Service *
1920	\$17,270,483	.....
1921	157,517,688	.....
1922	60,815,400	.....
1923	24,065,204	.....
1924	14,463,976	.....
1925	39,745,027	.....
1926	19,972,379	\$2,959,733
1927	31,506,201	4,479,585
1928	32,121,096	7,039,930
1929	85,461,176	19,778,706
1930	98,183,121	15,570,730
1931	.....	20,031,600
Average deficit, six years	.....	\$11,643,381

* Post Office Department estimates.

Table II—Total Revenues from Express and from All Mail—

Year	Class I Roads Total Revenues from Express	Total Revenues from All Mail *
1920	\$143,737,933	\$87,057,682
1921	104,577,059	95,609,962
1922	143,291,195	90,991,024
1923	152,910,540	92,920,296
1924	143,388,606	100,828,371
1925	145,377,429	103,931,075
1926	149,071,699	106,736,492
1927	143,385,777	106,615,967
1928	142,599,048	110,728,937
1929	148,195,924	114,251,497
1930	114,664,983	111,451,186
1931	82,774,882	105,423,198

* Since neither the railroads nor the Post Office Department make any accounting separation of funds received or paid for transportation of fourth-class mail (parcel post) from those received or paid for transportation of other types of mail, it is impossible to ascertain exactly what proportion of total railway mail revenue is attributable to carriage of parcel post. It should be noted, however, that the figures in this column show revenues received by Class I roads for transportation of all classes of mail; revenue from parcel post alone would not be over 70 per cent, and probably not more than 60 per cent, of the amounts here shown.

companies also contended that the weight and size limits in effect before the 1931 increase were higher than was required to afford a reasonable parcel post service, a statement which is fully borne out by the fact that, taking the year 1928 as an example, only 2.33 per cent of the 210,835,775 parcels shipped by mail for distances of 300 miles or more (beyond Zone 3) were over 20 pounds in weight. Since these figures of past performance indicate that an extensive parcel post movement of large packages over long distances is highly improbable, there could have been no good reason for extend-

railway revenue from all classes of mail exceeded that from express. Since revenue from parcel post alone constitutes not over 70 per cent, at the very most, of total railway mail revenue, it is obvious that railway receipts from the transportation of express exceed consistently and by a considerable margin those from the transportation of parcel post. Should the express companies be forced out of business, or their traffic materially reduced by parcel post competition, some of the revenues now received from the former source would continue to be paid to the railroads for increased parcel post traffic, but that amount would certainly be much smaller than is received from express companies.

The Taxpayers' Viewpoint

Even more important than the interest of the express companies and the railways, however, is the concern of the using, taxpaying public. Were the two services on an approximate par in efficiency, the interest of the using public might be disregarded, but the theoretical equality in the service offered is, in practice, completely nullified by the financial and managerial superiority almost invariably observed in a private business as compared with one which is government-operated. The express, after deducting all operating expenses and all items of overhead expense, including interest and taxes, is still able to show at least a nominal net income. The parcel post, after deducting only operating expenses, always shows a substantial deficit. Nor can the more favorable financial results of the express service be ascribed to the fact that express rates are now ordinarily higher than parcel post rates, for express charges include pick-up and delivery at all points where vehicle service is maintained, as well

as insurance against possible loss or damage; parcel post rates include nothing but delivery.

These faults might, perhaps, be forgiven by the using public, if the parcel post did not likewise constitute a serious drain on the finances of the taxpaying public, but, in contrast to express, the parcel post is not a self-supporting service. Because the Post Office Department, like other branches of the government, persistently refuses to take into account many of the elements entering into a true determination of cost, as encountered by express and other private businesses, it is wholly impossible to learn the exact amount by which the nation's taxpayers are burdened to provide parcel post service.

Total Cost Estimated as \$30,000,000 a Year

Table III gives the Post Office Department's own figures, showing that the deficit incurred in providing parcel post service has varied from \$3,000,000 in 1926 to \$20,000,000 in 1931, a six-year average of nearly \$12,000,000, or about 20 per cent of the average annual loss for the entire Post Office Department. These figures represent a considerable sum, in view of the fact that they must be made up by general taxation, yet they are operating deficits only, with no provision whatever for taxes, depreciation, interest on investment, or any other costs of that nature. The department's failure to account for these items makes it impossible to ascertain the true cost of parcel post service, but a report issued in 1925 by the United States Chamber of Commerce said:

The costs as reported by the Post Office Department do not include some items. For example, there is no charge on account of occupancy of buildings owned by the government. No basis seems to exist at present for estimating the charge that would be proper for this purpose. It can only be said that the cost of constructing the government-owned space occupied by the postal service was well over \$100,000,000.

Apparently, the report considers this last figure ultra-conservative; but taking it as it stands, and estimating interest at five per cent, taxes at three, and depreciation at two—about the amounts a private corporation occupying property of similar value would have to pay—we find an additional annual charge of \$10,000,000 never included in the deficits reported by the Post Office Department. Not all of this amount can be charged to parcel post, but 20 per cent of it (\$2,000,000) could safely be so assigned, since that is the proportion which the parcel post deficit bears to the total postal deficit.

In another report, issued late this year, the United States Chamber of Commerce offers an even more striking instance of hidden costs:

The true costs to taxpayers of this form of competition are much larger than the reported operating deficits. The increase in the parcel post has required larger quarters for postal operations, and there has been increase in both expenditures for leased quarters and for construction of new buildings. In one city expenditure for rent of \$7,000 in 1920 became later \$120,000 a year. In another city the lease of a garage for postal vehicles, mostly required for parcel post, has been \$23,000 a year. In a large city a parcel post building has been considered necessary, costing \$11,000,000, and a post office garage to cost \$9,500,000.

Considering only the last two figures, here is an instance where parcel post service alone, for a single city, required a capital expenditure of over \$20,000,000, furnished in the first instance entirely by taxpayers, and equivalent, on the basis used above, to a charge against those same taxpayers of \$2,000,000 a year. Like the first case, it should be added to the reported parcel post deficit, but, as it is, the taxpayers pay the amount annually without realizing that they are doing so.

If accurate figures as to all similar instances were available they would raise to a staggering total the true cost to taxpayers of providing parcel post service for the

benefit of a relatively small proportion of the entire population. Even if only the average operating deficit be taken as a base, and hidden "fixed charges" be estimated as conservatively as possible, the total cost of parcel post, over and above its revenue, can hardly be less than \$20,000,000 a year. If the 1931 operating deficit of \$20,000,000 be used as a base, the total drain on the taxpayer amounts to approximately \$30,000,000. And since operating deficits, as Table III shows, have been increasing by leaps and bounds, while building construction, interest on property investment, and the like, must inevitably increase with each additional extension of service, the figure of \$30,000,000 will soon be far too small, if indeed it is not already.

Ninety years ago, the government brooked no interference with its monopoly on the transmission of information by letter. Nineteen years ago it imposed upon that monopoly a service of a distinctly different sort—the transportation of merchandise—despite the fact that such transportation has always been considered an appropriate field for the exercise of private enterprise, and despite the fact that there were already in existence established private companies giving the same type of service, rapidly, efficiently, and reasonably. The government has steadily extended its service in competition with these companies, even going so far as to use modern "high-power" promotion methods to take their business away from them. It has done all this at terrific cost, reported and unreported, to its own taxpayers.

It is an established fact that the operating deficit of the parcel post could be completely wiped out by a surcharge of two or three cents on each package mailed, and such a surcharge would put the cost where it belongs—on the actual users of the service at the time they use it, rather than on the taxpayers. But the government, while willing to lower rates to win traffic away from the express companies, apparently balks at the idea of raising charges by any amount which might drive traffic in the opposite direction.

Even the surcharge, however, could not overcome the hidden "fixed costs." These, and the total deficit as well, will increase as the service is extended; and decrease only as it is curtailed. Therefore, in fairness to the express companies, which pay in taxes part of the cost of supporting a competitive service; in fairness to the railroads; and, above all, in common justice to the people and the corporations who pay the taxes which support it, the government, if it will not withdraw from the field entirely, should restrict its parcel post service to its original purposes and confine it within limits which will make it a mail service—not an express or a freight handling system.

* * *



Small Communities as Well as Large Would Suffer if Facilities Such as These Should Have to Be Abandoned

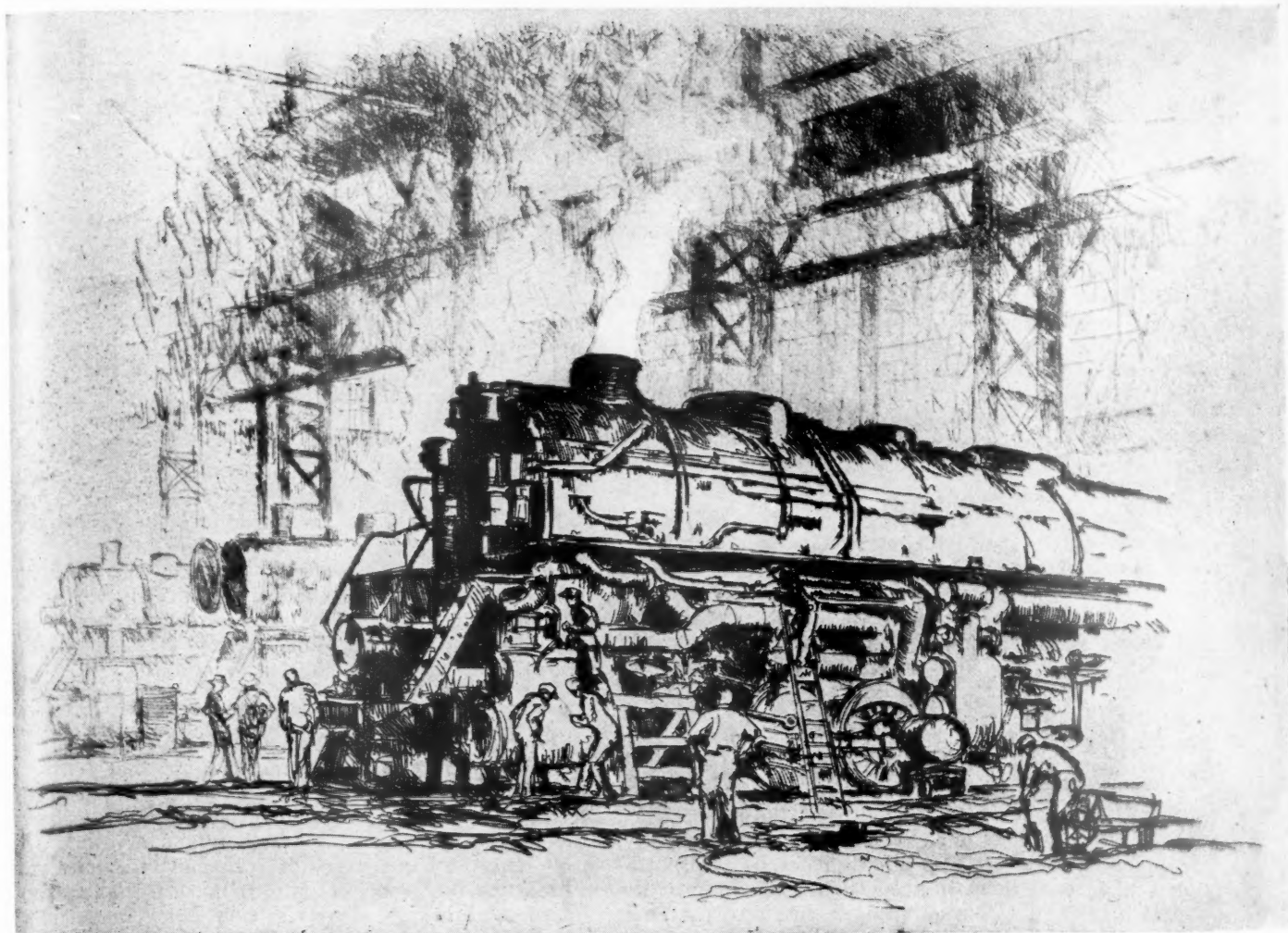
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Etching by O. Kuhler—Published by The Schwartz Galleries, New York

WHAT THE RAILROADS ARE DOING TO HELP THEMSELVES

The Railroads Are Not Asleep! - 828

***Roads Doing Much to
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***Western Railways Name
Commissioner - - - - 834***

Improvement Work Must Go On - 835

The Railroads Are Not Asleep!

Introducing new equipment and new methods, they are offering a freight service vastly better than has been known before

A MAN who is down and makes no effort to get back on his feet deserves neither sympathy nor aid. But the man who tries to fight his way back, in the face of tremendous odds, merits admiration and such assistance as can fairly be given him.

Which type of man is the embodiment of the railroads? In the face of subsidized and unfair competition, are the railways abjectly begging for help from others and doing nothing for themselves, or are they putting up the best battle they can? Are they using all the resources at their command to win their fight, and asking only for the fair rules of combat which every fighter deserves? The answer to these questions is to be found in the record made by the railways during recent years in improving their service.

While advocating the enactment of legislation to eliminate the glaring unfairness of the competitive situation, the railroads are not sitting with folded hands, waiting for help from others. On the contrary, they are endeavoring to meet the situation by vastly improving their service. Except for certain local types of transportation, where the flexibility of the motor truck permits it to handle traffic economically and efficiently, the railroads know that no other agency of transportation can surpass them in their ability to perform the freight service of this country most satisfactorily, from the standpoints of cost, speed and dependability. The railroads feel that the nation's traffic rightfully belongs to them and they are fighting for it with all the ingenuity and resources at their command. They are doing this by means of faster freight service, schedules having been shortened everywhere and in some cases cut virtually in half. They are doing this by introducing many forms of new and more efficient equipment, including freight containers and demountable truck bodies which can be carried either upon motor trucks or upon railway flat cars, and which offer simplified handling of freight, as well as reduced packing requirements. They are doing this by offering a complete transportation service from the door of the shipper to the door of the receiver. In short, the railroads are doing everything within their power to duplicate and improve upon the freight transportation service offered by their newer competitors.

The railroads have reason to be proud of the extent to which they have speeded up their freight service. Only the airplane is faster than railroad passenger trains, and it is a significant fact that in a great many cases railroad freight trains now rival passenger trains in speed. Full days have been lopped off

the schedules of long-distance freight trains, and a surprising number of hours have been eliminated from the time in transit of freight handled on trains with shorter runs. "Accept Today—Deliver Tomorrow," a slogan which has been converted into fact on one of the eastern roads, is likewise representative of the present goal of railroads all over the country. "The fastest freight train in America," which maintains an average speed of nearly 40 miles an hour in its run over the rails of one of the southwestern lines, now has rivals in every section. One night is all that is necessary nowadays for freight trains to move merchandise between points as far from each other as 250 and 300 miles. The railroads are capable of running trains at speeds far in excess of those which legally can be maintained by highway vehicles, and they are pressing their advantage to the utmost.

Examples of Expedited Service

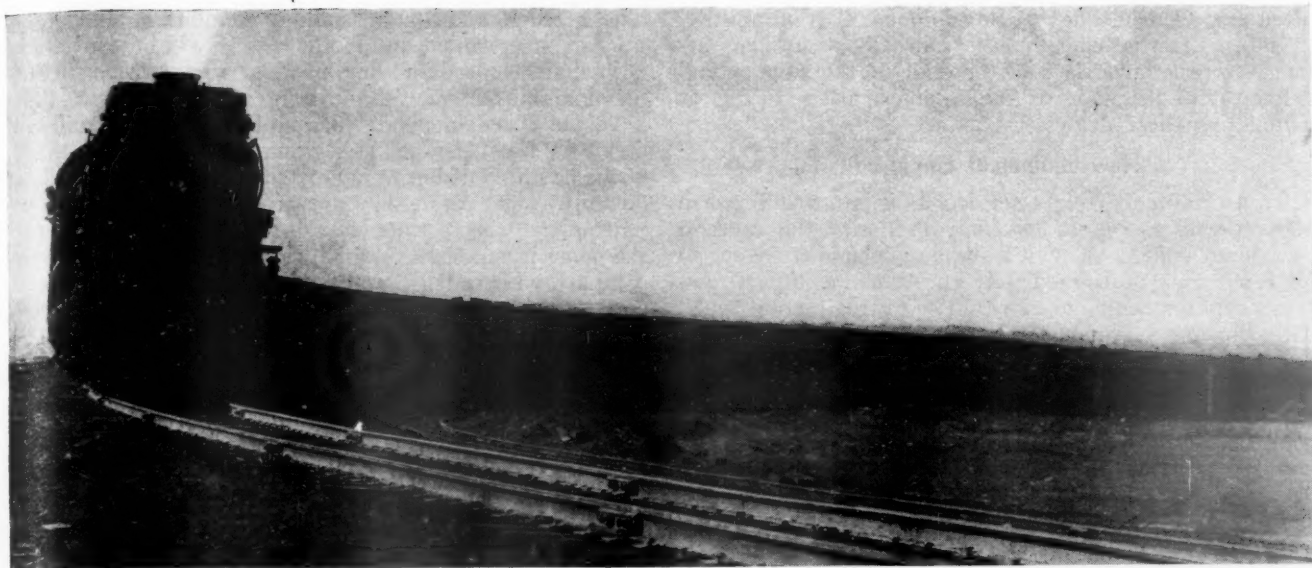
To cite a few examples: Fruit and vegetables sold in northern markets constitute an important source of revenue for the southern states, and the railroads in that territory have been unceasing in their efforts to handle this perishable traffic in the most satisfactory way. The time required for delivery of fruit and vegetables from Florida to the principal eastern markets has been reduced by 24 hours, deliveries now being made on the fourth morning instead of the fifth. In working out these faster schedules, the southern and southeastern railways have had the full co-operation of connecting roads, so that the effect of the faster schedules is felt as far west as Salt Lake City, Utah.

Between New Orleans, La., and Cincinnati, Ohio, a distance of 833 miles, freight trains loaded with perishable traffic now make the run in 35 hours, completing deliveries a full day sooner than before. Nor has the faster service been confined to trains handling perishable freight. Merchandise, likewise, enjoys the faster movement. For example, the running time of merchandise freight trains between Norfolk, Va., Cincinnati, Ohio, and Columbus has been reduced from 16 per cent to 28 per cent. In many cases, deliveries are made 24 hours earlier than formerly. Faster movement of live stock has made it possible for one of the railways to deliver most of its live stock at one of the principal markets without feeding enroute, where formerly one feeding was required.

The record of one large eastern road in speeding up its freight service is typical of what these trunk-line carriers have done. A full day has been taken from the schedules from seaboard points to such western termi-

Better Freight Service

The railroads, while asking for relief from unfair conditions of competition, are not failing to do their utmost to help themselves out of their predicament. They are meeting competition as best they can by vastly improving their freight service. Faster freight train schedules are bringing producers and consumers many hours, and even full days, closer to each other. Pick-up and delivery service is extending fast railroad transportation directly to the doors of shippers and receivers of freight. New types of equipment are combining the advantages of railway and highway transportation, to the great advantage of the shipping public. These improvements in their service, while costly to the railroads, have been made with confidence that the public will recognize their obligation to the railroads as the railroads have recognized and fulfilled their obligation to the public.



Freight Trains in All Parts of the United States Now Rival Passenger Trains in Speed

nals or gateways as Columbus, Ohio, Toledo, Cincinnati, Ft. Wayne, Ind., Chicago and St. Louis, Mo. Perishable freight moving from Chicago and St. Louis to Boston, Mass., is now delivered on the third morning instead of on the fourth morning, and the same applies to merchandise traffic. Merchandise freight trains provide overnight service between Boston, New Haven, Conn., New York, Philadelphia and Baltimore, Md., with the result that deliveries have been quickened to the extent of 24 hours and even 48 hours. Several of the smaller eastern lines—smaller but still covering areas 300 miles in length—now offer overnight freight service between all points on their lines.

On a southwestern line, merchandise trains from principal distributing cities now give overnight freight service to points 325 miles away. For example, cars loaded by 6 p.m. at Dallas, Tex., and Ft. Worth are ready for delivery in the far West or in East Texas early the next morning. Another road, by moving merchandise freight in mixed passenger and freight trains, now gives overnight service between points which previously had had schedules requiring 36 hours for deliveries. Twenty-four hours off the schedules between St. Louis, Mo., Memphis, Tenn., and Texas points; 36 hours off the schedules between Chicago and Denver, Colo.; 24 hours off the schedules between San Francisco, Cal., and Portland, Ore.; 3 days off the schedules from Chicago to the Pacific Coast—these are some of the most striking accomplishments of the railroads in speeding up their freight service, and they are duplicated in every part of the country.

Overcoming Terminal Delays

Terminal delays sometimes nullify the effect of fast time over the road, but the railroads are exerting every effort to eliminate them. For an example of what the railroads are doing in this direction, consider the accomplishments of one road operating southwest out of Chicago. By revolutionizing the handling of freight through its terminals, 24 to 36 hours, and even more, is being saved in the time in transit of merchandise carried by this road. Kansas City is its principal merchandise shipping point, and the schedules of trains serving Kansas, Oklahoma, and much of Texas and Colorado now call for departure from Kansas City immediately after the closing of freight houses, with delivery early next morning to as wide an area as possible.

Formerly, merchandise trains from Chicago, which left as soon as possible after the closing of freight

houses, did not arrive in Kansas City in time to connect with the merchandise trains from that point. This situation needed to be corrected, and the first move was to speed up the trains between Chicago and Kansas City to permit carload freight to be transferred immediately from the inbound to the outbound trains at Kansas City. This eliminated a delay of 24 hours to the Chicago merchandise which was going to points that could be served by through merchandise cars, and also saved the same delay to carload freight.

Later on, trains between Chicago and Kansas City were made even faster, so that merchandise which had to be transferred from one car to another at Kansas City could still pass through Kansas City with only a short delay. The effect of this was that the service from Chicago to stations in Kansas, Oklahoma, Texas and other western states was made faster by 24 hours. In 1926, such a thing would not have been considered possible. In 1932, it is a daily actuality, typical of the miracles in fast freight movement which the railways are performing daily.

A Complete Service

The job of improving their freight service, however, has not been confined by the railways to the speeding up of their freight trains. In addition, many of them are extending their service beyond their railway properties to the very doors of shippers and receivers of freight. Store-door collection and delivery, the term used to describe the movement of freight from the shipper's place of business to the railroad station and from the railroad station to the door of the receiver of the freight, are becoming familiar words. Store-door collection and delivery is frequently mentioned as one of the services of motor truck transportation most attractive to shippers. Its provision is likewise one of the important means by which a large number of the railways are improving their freight service.

Under methods formerly employed, the railroad had completed its job when it moved freight from one of its stations to another station. It was up to the shipper and the receiver to arrange for the movement of the freight between the railroad stations and their places of business. In consequence, due to the lack of co-ordination between the movement of freight to the station and the schedules of outbound trains, and the necessity of notifying the receiver of the arrival of freight and then waiting for him to come and pick it up, there were delays in the delivery of freight from shipper to receiver, which

often extended into days. Store-door collection and delivery of freight, whereby the railroads themselves arrange to pick up freight at the door of the shipper and deliver it to the door of the receiver, are reducing or eliminating these delays.

New Equipment Employed

To use railroad freight service, as it is now offered in many areas, a shipper has only to notify the railroad that some freight is on his shipping platform ready to be taken away. Immediately the machine of railroad transportation begins to move. The railroad motor truck backs up to the shipper's platform, and the shipment is put on board and taken to the nearby freight station. Here the shipment is loaded into a merchandise car, the car is made up into an overnight freight train, and soon is on its way to its destination. Arriving at the destination, the shipment is unloaded from the freight car, placed in another railroad motor truck which takes it directly to the platform of the receiver, where it is quickly unloaded and made available for immediate use. Formalities are being done away with, red tape is being cut. Freight no longer clutters up railroad freight stations. It moves promptly and quickly from the point of production to the point of consumption.

Along with their new methods, several of the railroads are bringing into play new types of equipment. One of these is the freight container, a steel box which is, in effect, a miniature freight car. It is taken to the shipper's place of business, loaded there, moved by motor truck to the railroad station, lifted by a crane and put into a railroad car for movement to destination, and there delivered by truck to the platform of the receiver. The freight container offers to the shipper of freight moving in less than carload quantities the advantages of carload movement. The shipper's own employees pack the freight in the container, and its movement to destination is completed without rehandling of its contents at any time. Loss and damage are reduced, packing requirements are simplified, and the whole movement is accelerated by means of freight containers.

For the purpose of further co-ordinating railway and highway transportation, and to combine the advantages while avoiding the disadvantages of each, a number of roads have devised what is known as the demountable truck-body service, by means of which full-size motor truck bodies can be moved by railroad instead of by highway in their journey from one city to another.

These truck bodies, not unlike containers but larger in size, are hauled by motor truck within the cities, enjoying the speed and flexibility of truck service for the terminal movement. On the intercity movement, they have the speed, dependability and economy of railroad service. Furthermore, a beginning is now being made in the handling of entire motor trucks or highway trailers on railway flat cars. The operators of motor trucks are patronizing this service because they realize that, for the intercity movement, highway transportation cannot compare with railroad transportation in speed, economy and certainty of on-time arrival.

What the New Services Mean

Store-door pick-up and delivery, freight containers, demountable truck bodies and the transportation of loaded motor trucks on railroad cars are all modern developments initiated by the railroads. They stand as proof of the earnest desire of the railroads to improve their service and to offer to shippers all of the advantages of all the most modern tools of transportation. They represent the beginnings of that co-ordination of the various agencies of transportation which, although delayed by the artificial conditions surrounding highway transportation which only legislation can correct, will eventually give the nation the finest freight transportation service it has ever enjoyed.

The improvement of their freight service has cost the railroads incalculable sums of money. The investments which they have had to make in improving their facilities of transportation and adding to them the modern devices already mentioned have aggregated billions of dollars. The railways, as a whole, have spent more than \$7,500,000,000 in the last ten years in enlarging and improving their properties. One road, typical of many others, has expended more than \$100,000,000 in making improvements to its roadway and equipment, largely for the purpose of making it possible to speed up freight schedules. In bad times as well as in good, the railways have given the first call upon such money as they have had to the continuous requirement of improving their service. They

have spent vast sums for the benefit of their patrons and of the entire nation, with confidence that the public will recognize their obligation to the railroads as the railroads have recognized their obligation to the public, and that the public will protect the essential railroad transportation system from the unfair attacks of subsidized competitors.



Demountable Truck Bodies Represent One Kind of New Equipment with which the Railways are Improving their Freight Service

Roads Doing Much to Improve Passenger Service

Added comforts and shorter schedules being provided in spite of decreasing traffic

Among Improved Train Schedules Is That of the San Francisco - Overland Limited



A PASSENGER service which offers more safety and comforts than the home, and which is more convenient and dependable than any other form of transportation, is being still further developed by the railroads to meet the public's increasing demand for speed and convenience. This improvement in passenger service, exemplified by fast and convenient schedules, equipment with air-conditioned cars and more extensive accommodations, has been brought about in spite of the fact that passenger traffic has steadily declined from a total of 1,234,862,049 persons carried in 1920 to 596,339,000 persons carried in 1931.

Of particular significance is the fact that while the railroads are making extensive improvements in service, they are, at the same time, effecting many economies in operation by revising schedules to combine trains and by eliminating unprofitable and unnecessary trains. The latter is being accomplished with great difficulty, since the elimination of trains arouses the prejudices and jealousies of communities and requires the approval of many regulatory bodies.

While improvements in past years have been a result of efforts to create the best type of service possible, more recently they have been stimulated also by competition and the necessity of bringing back some of the traffic lost to competing transportation agencies. That many of the railways are making heroic efforts to regain

traffic is indicated by their recent expenditures for new equipment and the higher standards of travel luxury now being offered. The progress along these lines in the last six years has exceeded that made in any previous twenty years.

While the improvements that have been made in passenger service of late are many and varied, those which concern the public most are those affecting convenience of rail travel. Conveniences have been so developed that the taking of a rail trip now involves little more than the decision to go, for conveniently located ticket offices in cities and solicitation departments are prepared to handle all the details of travel. By purchasing a ticket, the patron may at numerous points be provided with taxicab service to and from the train, while the railroad will handle his travel necessities and automobile as baggage. If he wishes to drive his own automobile to the train, parking space is available at many depots. These conveniences continue throughout the trip. Enroute, the patron is provided with all sorts of accommodations, such as porter and barber service, bath facilities, shops and even soda fountains. Telephone and telegraph communication between the train and cities is also maintained, while entertainment is provided by radio.

Typical of the vast improvements in passenger service is the marked shortening of schedules, due to more efficient operation and greater train speed. The wholesale

"Roads Doing Much to Improve Passenger Service"

Improvements, exemplified by fast and convenient schedules and better equipment, brought about in spite of steadily declining traffic.

It is now possible to save as much as 10 hours on some runs as compared with 1926.

New and more elaborate trains show amazing increase in travel luxury.

Coach service greatly improved by

faster trains and more modern cars.

Mystery excursions, class rates and special rates make service more attractive.

Substitution of rail motor cars for steam trains reduces cost of service as much as 50 per cent.

Over 39,800,000 passenger train miles saved annually by Western lines by efficient operation.

What the
Roads are
Doing

reductions in running time made during 1928 and 1929 were greater and more widespread than in any five-year period previously, with the result that it is now possible to get from many business centers to many others in from one to ten hours less time than was required in 1926.

Among the important reductions in running time are those of the Chicago-Pacific Coast lines. In June, 1929, the lines serving the Pacific Northwest made a 6 hr. 45 min. reduction in running time from and to Chicago. This outstanding improvement was participated in by the Chicago, Milwaukee, St. Paul & Pacific, the Chicago & North Western-Union Pacific and the Chicago, Burlington & Quincy, in connection with both the Great Northern and the Northern Pacific. In 1930, the schedule was



A Modern Pullman Car Provides Privacy

further reduced to provide 58-hour service from the Northwest to Chicago, instead of 61-hour, and 59½-hour westbound, as compared with 60¾ hours.

In 1929, both the Union Pacific and the Atchison, Topeka & Santa Fe reduced the running time of their extra fare trains between the Pacific Coast and Chicago from the previous schedule of 63 hours westbound and 61-hr. 15 min. eastbound to 58 hours in each direction. At the same time, the schedules of the fast regular fare trains of these roads and of the Chicago, Rock Island & Pacific-Southern Pacific were reduced from 68 hours to the former schedule of the extra fare trains, namely 63 hours westbound and 61-hr. 15 min. eastbound. In November, 1931, the running time of Chicago-California trains was further reduced, the extra fare trains from Los Angeles being placed on a 56½-hour schedule. Other improvements in western schedules include a reduction of 1 hr. 35 min. between Chicago and Denver, participated in by the Union Pacific-Chicago & North Western, the Chicago, Burlington & Quincy and the Chicago, Rock Island and Pacific.

That faster service has been national in scope is indicated by improvements made also in other sections of

the country. The Chicago-New York lines have made notable improvements, the one 20-hour train operated each day in each direction by the New York Central and the Pennsylvania being replaced by more than 20 trains which operate on schedules of 21 hours or faster. In addition, these lines have shortened the schedules of several other trains to 21 hours, or less. The New York, Chicago & St. Louis and the Erie put on new fast trains between Chicago and New York, while the running time was reduced on certain trains on practically all of the other lines serving both cities. The Baltimore & Ohio reduced to 18 hours the Chicago-Washington running time of its Capitol Limited, which operates between Chicago and Washington, and New York; and the Pennsylvania's Chicago-Washington train—the Liberty Limited—was also placed on an 18-hour schedule. These changes were followed in April, 1932, by a further reduction in schedules which placed the New York Central's Twentieth Century Limited and the Pennsylvania's Broadway Limited on an 18-hour running time.

Similar reductions have also been made in the running time of trains between New York and Cincinnati, Ohio; New York and St. Louis, Mo.; New York and Buffalo, N. Y.; New York and Wilkes-Barre, Pa.; New York and Boston, Mass.; New York and Cleveland, Ohio; New York and New Orleans, La.; Pittsburgh, Pa., and St. Louis, Mo.; Pittsburgh and Philadelphia, Pa.; Chicago and Pittsburgh; Chicago and Washington; Chicago and St. Paul, Minn., and Minneapolis; Chicago and Louisville, Ky.; and Kansas City, Mo., and Detroit, Mich. Service to the Southwest and Mexico has been bettered also, there being schedule reductions ranging from one to four hours between St. Louis and Wichita, Kan.; St. Louis and Oklahoma points; St. Louis and Texas points; St. Louis and Mexico City; etc. The running time to Florida for the winter season has also been improved by schedule reductions and closer connections between Montreal, New England points, New York and Chicago.

As an evidence of the speeds at which trains in the United States are now operated, attention may be directed to the New York Central and the Pennsylvania between Chicago and New York, where the 960 miles on the former road and the 908 miles on the latter are covered in 18 hours or at the rate, for the New York Central, of more than 53 miles per hour, a world's record for long distance. In this same operation, the Broadway Limited of the Pennsylvania maintains an average speed of 63 miles per hour from Englewood, Ill., to Ft. Wayne, Ind., a distance of 148 miles. The long distance speeds of the railways of the United States and Canada are duplicated in no other country in the world.

Great Improvement in Equipment

Besides a general reduction in running time, new and more elaborate trains have been added, with the result that the trains of this country now represent an amazing increase in travel luxury, in both railway and Pullman owned equipment, as compared with as recent a period as five years ago. The changes in cars involve day coaches as well as lounge, parlor and sleeping cars. The spread of the solarium observation cars and of single and double room sleeping cars has been marked during the past five years, while during the last two years the adoption of air-conditioning equipment has been extensive, more than 200 cars being air-conditioned in 1931, many for complete trains.

The use of so-called "overnight" single-bed compartment cars was extended in 1930 by the construction of cars with convertible beds in the compartments. This permitted the extension of single-room car service from overnight runs, to which they were previously confined.

to longer distances such, for example, as between Chicago and New York, where several such cars are now in service. The popularity of this service is indicated by the fact that 23 exclusively single-room cars were placed in service in 1930, in addition to 23 other cars containing single-room facilities. The widespread use of the cars throughout the country is indicated by the fact that they are already in operation between New York and Chicago, Boston, Buffalo, Pittsburgh, Cleveland, Detroit, St. Louis, Montreal and Providence, R. I.; also between Chicago and Washington, Rochester, N. Y., St. Louis, Cleveland, Minneapolis and Lincoln, Neb. Other services are between St. Louis and Oklahoma City, Okla., Los Angeles and San Francisco; and Washington and Boston.

The extent to which Pullman cars have been improved is demonstrated by the fact that a modern car and its service differ from those of 1858 in more than 148 major respects. Among the outstanding developments made by the Pullman Company since 1930 are the adjustable four-position section seat, cars with private sections and adjoining toilets, cars with enclosed sections, chaise lounge section cars, "Duplex" accommodations having two single rooms on the lower floor and two more upstairs, and the upper berth with standing room.

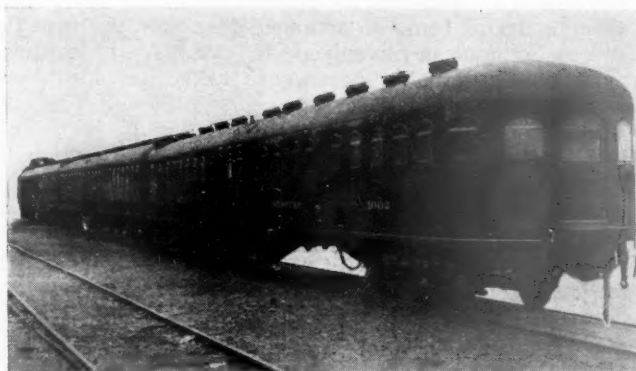
Like sleeping car service, coach service has been greatly improved, and fast trains of day coach equipment alone are now in operation on several roads, with make-up including observation and chair cars, for which there is no extra charge. Modern day coaches are rapidly being equipped with individual revolving type seats with arm rests between each pair, and deep cushions upholstered in rich color schemes. These coaches are also equipped with double windows set in rubber to exclude dust and are especially arranged for easy lifting. Individual ventilators are being installed in each window, readily opened or closed to suit one's preference. Even temperatures are maintained by thermostatic control, while exhaust ventilators keep the cars supplied with fresh air. Filtered drinking water and free paper cups are provided, while in each car end is a lavatory and toilet of sanitary and roomy design. The lavatories in these cars are being equipped with white porcelain wash bowls, liquid soap, free paper towels and large mirrors.

Special Rates Applied

While the railways are rapidly developing a de luxe passenger service, they are making this service still more attractive by the application of special rates and excursions. Typical of this are the excursions that have been operated with increasing frequency during the last couple of years, at rates as low as one-half cent a mile. Confined at first to day coach trains, and to short distance travel, these rates have gradually been extended to greater distances and to all trains. In many instances the Pullman Company has cooperated by reducing the charges for sleeping car service likewise.

One of the outstanding innovations in fares has been the establishment of first, second and third-class rates by the lines operating between Chicago and other mid-western points and the Pacific coast. The first-class rate is based upon the standard fare of approximately 3.6 cents a mile and is honored in standard sleeping cars on payment of the additional charge for the space occupied. The second-class rate is 20 per cent less than the first-class, or on a basis of about 3 cents a mile, tickets being honored in tourist sleepers only. The third-class rate is nearly 40 per cent less than first-class and this is good only in coaches.

By way of novelty, a recent innovation is the mystery excursion, wherein the destination is unknown and mystery, romance, adventure, education and diversion are



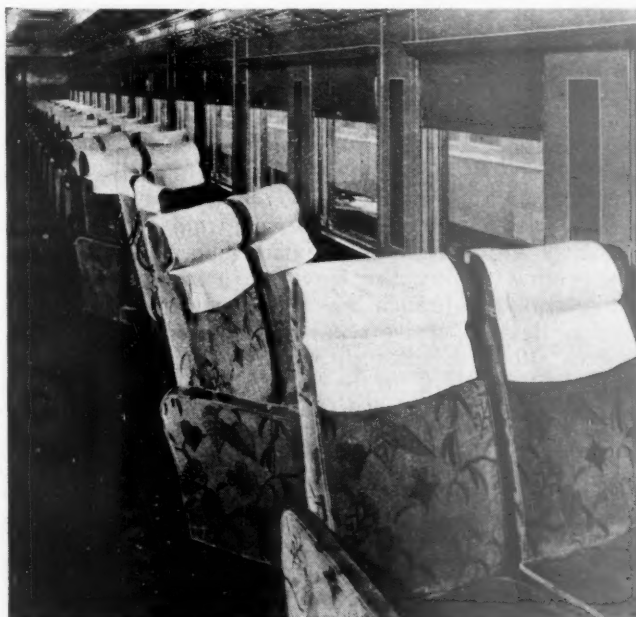
A Rail Motor Car With a Day Coach and Pullman-Lounge Car Replacing a Steam Train

featured. Only the hours of departure and return are published, and even the train crew is under sealed orders, which are not opened until the train is actually on its way. Tickets for these excursions cover the cost of transportation, meals and lodging.

Many Economies Effected

While these improvements in passenger service have been extensive, they have, at the same time, been accompanied by many economies. On many light-traffic lines the cost of providing necessary passenger service has been reduced as much as 50 per cent through the substitution of modern, efficient rail motor cars for steam passenger trains. In every item of operating expense, particularly wages, fuel and maintenance, the cost of rail motor car operation is substantially less than that of steam train service. As a result, rail motor cars are finding increasing use under a wide variety of conditions, even to the extent of providing mixed train service, handling local freight cars, as well as passengers. On the Chicago, Burlington & Quincy, 57 rail motor cars have enabled reductions in operating expenses to be effected totaling \$699,290 per year.

During the last two years even greater economies have been brought about through the rearranging of passenger train schedules, which have made possible a reduction in the number of trains operated without lessening the quality of service performed, the schedules of the re-



Upholstered Individual Seats Add to the Comfort of Day Coaches

maining trains being so arranged that they perform the service without inconvenience to patrons. Discontinuance of unprofitable passenger trains has also been marked during the past few years, although progress along this line of endeavor has been retarded by the reluctance of state regulatory bodies and local communities to give up service. The extent to which the railways have reorganized their passenger service to effect economies of this character is shown by the fact that in 1931 the western lines alone effected a reduction of more than 39,800,000 passenger-train miles, or 17.5 per cent, as compared with 1929.

Another measurable economy has resulted from efforts made by the railroads to eliminate as much preventable waste as possible in their competitive relationships. An illustration of what has been accomplished in this direction is found in the changes made by the New York Central and the Pennsylvania in their New York-Chicago through service. From April to July of this year, while shortening the time of their two fastest daily trains by two hours, and at the same time offering intermediate cities improved service, they reduced the service as a whole between these two cities by 45 per cent, resulting in a saving of approximately 4,339,000 passenger train-miles per annum, while in the same service Pullman car-miles have been reduced 20,400,000 per year. At the same time, extra fares have been taken off all trains, except one train each way daily on each road.

Still another form of economy has been the pooling of the passenger train service of roads operating between common points. Typical of this are the Portland-Seattle-Tacoma and the Twin Cities-Duluth pools. In the former, the Northern Pacific, the Great Northern and the Union Pacific, operating over joint tracks, each originally provided six trains daily. When faced with the demand for still more service, which would not have been profitable, these roads pooled their trains, effecting an improvement in their service to the public and at the same time saving \$150,000 annually in operating costs. Likewise, prior to pooling their service between the Twin Cities and Duluth, the Northern Pacific operated four trains daily in each direction, the Great Northern three and the Minneapolis, St. Paul & Sault Ste. Marie three. Through a pooling arrangement, this total of 10 trains each way daily was reduced to six, with no detriment in service to the public and a saving of \$200,000 annually in operating expenses to the carriers. As another example, the St. Louis-San Francisco and the Missouri-Kansas-Texas, on January 24, 1932, pooled their passenger service between Tulsa and North Texas points, thus eliminating two trains each way.

Further efforts to economize in passenger train service are now under way, following a meeting of railroad presidents in Chicago in April. An intensive study is being made to determine the possibility and practicability of reducing unprofitable passenger train operation, particularly with a view to eliminating duplicate service, to the pooling of competing service, to a further curtailment of unprofitable branch line service and to the substitution of less expensive types of service. In this study, special attention is being given to the service from Chicago to New York, to the Twin Cities, to St. Louis, to the Northwest and to California.

In their service to the public, the railroads are bound by regulations, interstate and intrastate, governing the fares they collect and the service performed. Their competitors, the motor coaches and airplanes, are subjected to no such regulations, but are free to charge as they desire and to add or annul routes or service at will. There is, therefore, no equality of competition.

While waiting for this situation to be recognized and

corrected, the roads are considering still greater improvements in service. Without doubt, fares will be lowered, schedules quickened still more and equipment made even more attractive and comfortable. Cars will be constructed of lighter materials, thus reducing their weight and permitting faster schedules. Possibly, as one writer has said, "The time is not far away when surface passenger travel will be moved in cars of duralumin, weighing less than their load of passengers, and will use the right of way at 150 miles an hour and faster." This is the service which the railways are offering, confident that the attitude of fair play that is so characteristic of the American public will bring about the elimination of those handicaps that are throttling them today.

Western Railways Name Commissioner

HARRY GUY TAYLOR, manager of public relations, Car Service Division, American Railway Association, has been selected as commissioner of the Western railroads and he also becomes *ipso facto* chairman of the Western Association of Railway Executives. This is a movement to control revenue losses due to competition between Western lines and is similar to the action taken recently by Eastern railway executives in the appointment of an economy committee and the formation of the Presidents' Traffic Conference, Eastern Territory.

The following statement accompanied the announcement of Mr. Taylor's selection:

Duties of Commissioner

"The Commissioner's duties are clearly defined in an agreement which has been executed by all the Western railroads and are principally in connection with co-operative action between the various lines in matters of rates and train schedules.

"Attention is especially called to the unfortunate appellation of 'czar' which has been used frequently while the plan was under consideration. Such a position as this title implies is a manifest impossibility

in the railroad field. No railroad can legally or morally divest itself of ultimate freedom of action, nor is that contemplated.

"The Commissioner in his neutral position can, and undoubtedly will, bring into each situation, as it arises, a consideration divested of individual bias and for that reason can contribute greatly to a disposition fair to all parties and the public alike."



Harris & Ewing

Harry Guy Taylor



An Example of Heavy Track Construction in Which the Railways Have Made Large Investments for the Purpose of Reducing Maintenance Charges

Improvement Work Must Go On

Railways will be compelled to spend at least half a billion dollars annually for additions and betterments as soon as confidence and credit are restored

IF the perplexing uncertainties and grievous inequities that now beset the railways could be swept aside in the next few weeks, the roads would spend 500 million dollars for physical improvements during 1933. This outlay would be entirely in addition to the expenditures necessary for the current operation and for upkeep and repair of the existing facilities.

Half a billion dollars is a lot of money. It would provide employment for a quarter of a million men directly and for nearly as many more indirectly in the production of materials that enter into such improvements. Yet, the investment of that amount in 1933 would represent a marked scaling down from the average annual expenditures which the railways actually made during the eight years ending with December 31, 1930, in providing facilities commensurate with the demands for efficiency and economy in transportation. In those eight years, they spent \$4,972,460,000 for additions and betterments, or in amounts ranging from \$468,186,000 to \$807,460,000 in individual years.

What was the reason for spending so much money? How was it spent? What is the justification for the assumption that the railways will make further investments in additions and betterments in like amounts if and when the money becomes available?

In brief, the railways have had before them so many plans for improvements designed to provide better service or cut operating costs that only those which offered the most attractive return have been carried out. Even in the most unpromising field of all, new-line construction, one finds that the opportunities are by no means exhausted. It is not generally

known, for example, that in the 10 years ending with 1930, 6,238 miles of new line were placed in operation, and this in the face of the severe restrictions imposed on new-line construction by the Transportation Act of 1920! Further evidence is afforded by the recent loan of \$3,800,000 to the Denver & Rio Grande Western for the construction of the 40-mile Dotsero cut-off in Colorado. The justification for this project, a saving of 172 miles in the rail distance between Denver, Colo., and Salt Lake City, Utah, is illustrative of the circumstances that will give rise to additional new-line mileage.

Intensive Rather Than Extensive Development

It is true, however, that the real need today is for intensive rather than extensive development—for new and improved facilities designed to keep pace with the recurring changes in industry and commerce. Any close student of the railway industry during the last two decades can cite case after case in which a railway, after having to all intents fulfilled the demands for one type of facility, is confronted with the need for others of a radically different or appreciably modified character.

In Chicago, for example, there is at present no urgent

Need for Physical Improvements

For the first time in history, the railways are standing still.

Lack of credit has interrupted an improvement program that entailed capital expenditures totaling five billion dollars in eight years. This money was spent for additions and betterments that were designed to improve service and cut the cost of operation.

Experience has shown that these in-

vestments were economically sound, and research is constantly pointing to new ways in which this progress can be continued if and when money becomes available.

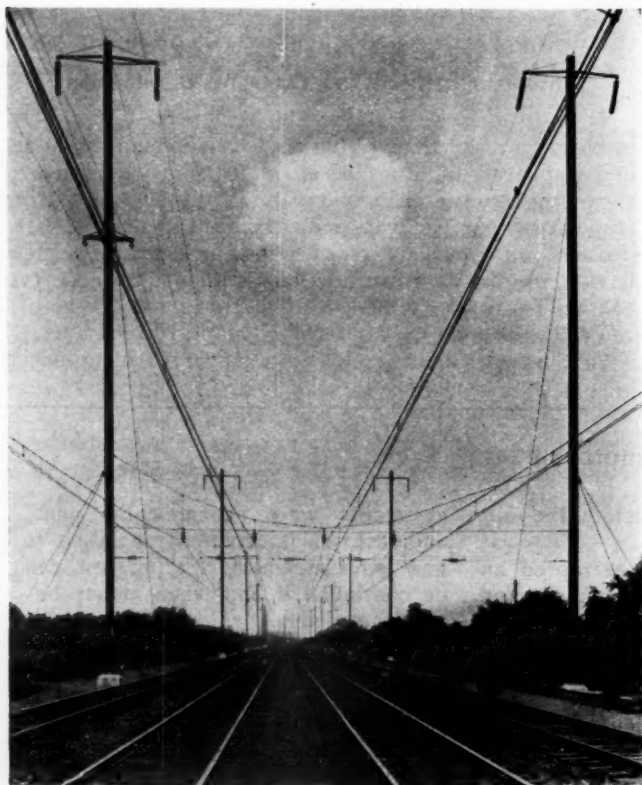
The railways cannot stand still long. If they do not resume their programs of capital expenditures they cannot continue to function as an effective agency for national commerce.

need for additional less-carload freight station capacity, three enormous terminals having been built within the last 15 years. But it is significant that one of the railways serving that city has recently introduced a less-carload facility of an entirely different order, namely, a large outlying transfer station where package freight from all city stations is consolidated before it is forwarded. This has proved so successful in speeding up less-carload freight that it opens a broad field for corresponding development by other railways. It is pertinent, also, that during the depression years of 1930 and 1931 two railways spent \$1,000,000 and \$3,900,000, respectively, for new express terminals in Chicago.

These projects are illustrative of the character of improvement work for which the railways must spend money if they are to keep their service facilities up to date. Furthermore, it must not be implied that the expenditures have been or will be confined to large units in large cities. On the contrary, the requirements are diversified and widely scattered. Thus, within recent weeks work has been in progress on the alteration and enlargement of stock yards at Sedalia, Mo., Parsons, Kan., and Muskogee, Okla., to meet changing trends in the handling of live stock.

The Outlook for Electrification

Another class of betterment work designed to improve railway transportation is steam railway electrification. While such projects have been confined in the main to areas of congested traffic, they have absorbed a large volume of capital during the last 2½ years. During this period three large suburban railroad electrifications have been completed, including the Delaware, Lackawanna & Western installation from Hoboken, N. J., the Reading Company's installation at Philadelphia, Pa., and the completion of electric service on all of the Pennsylvania Railroad suburban lines running out of Philadelphia. These installations provide a service to commuters which is superior to that which can be supplied for this purpose by any other means of transportation. Electric



Electric Power Systems Increase Track Capacity at a Minimum Cost

Distribution of Expenditures Made by the Railroads for Additions and Betterments in 1930

Roadway improvements—new lines, grade revisions, stronger track, etc.	\$228,469,211
Tunnels and subways	8,453,923
Bridges, trestles, culverts, etc.	70,605,559
Grade crossings and grade separation	25,223,977
Station and office buildings	41,217,699
Roadway buildings	1,088,052
Water stations	4,362,142
Fuel stations	559,227
Shops and engine terminals	15,365,592
Grain elevators	2,957,146
Storage warehouses	1,921,534
Wharves and docks	6,673,966
Coal and ore wharves	2,094,137
Power stations and facilities, etc.	17,641,704
Telegraph and telephone lines	4,642,140
Signals and interlockers	23,194,438
Miscellaneous construction and other charges	15,973,368
Assessments for public improvements	3,230,965
Roadway machines and work equipment	6,919,045
Locomotives	58,725,532
Freight-train cars	118,918,767
Passenger train cars	27,571,749
Motor equipment of cars	8,432,324
Floating equipment	4,391,203
General charges	6,656,290
Gross Total	\$705,289,690

operation of the New York Central West Side lines in New York City was inaugurated in 1931 and the Cleveland Union Terminal electrification in 1930.

The cost of the Lackawanna and the Reading installations was in each case about \$16,000,000. The Pennsylvania installation is a part of a large electrification program costing about \$110,000,000, and embraces all lines between New York and Washington, D. C. It is expected that the work will be finished by July, 1933. A loan of \$27,500,000 has been obtained by the railroad from the Reconstruction Finance Corporation which, with money raised elsewhere by the railroad, will provide for construction during 1932. About \$37,000,000 will be required for the completion of the project in 1933. Failure to complete the work would cost the railroad about \$4,000,000 a year to carry the plant not in service. Whereas, when in service, the improved facilities and reduced operating costs should effect considerable economies and be of material benefit to shippers and the traveling public.

Plans for new projects of similar magnitude have been made by several railroads. Their consummation depends almost entirely upon the removal of the inequities under which the railroads are now required to operate and on a restoration of traffic that will warrant the required expenditures.

Adapting Rolling Stock to Changing Requirements

Just as capital expenditures are constantly required to keep fixed facilities abreast of the changing requirements of the service, so is it with freight cars. Intensive efforts of industry to reduce handling costs is stimulating the development of special types of cars adapted to the efficient handling of specific types of commodities, some which have long been established while others are just reaching maturity as articles of industrial importance. The demand for the movement of cement in bulk is growing rapidly, and special types of cars are being provided which require manual labor neither for loading nor unloading. The use of similar cars will spread to other physically similar commodities.

Aluminum and glass-lined tank cars have made possible the bulk transportation of liquid products which must be protected from contamination of every sort. Special tank cars have expanded hydrogen peroxide from a drug-store product into a raw material of industry.

Because of this effort to meet the demand for cars designed to suit changing needs, the car orders placed by the railways in the five years from 1925 to 1929, inclusive, averaged about \$150,000,000 per year—more than 7 times the volume of orders placed in 1931 and more than 30 times the volume of orders which will be placed this year—and this in spite of a decline in the ownership of cars by the railways since 1925, due largely to a progressive improvement in utilization. Were the restoration of a volume of traffic sufficient to rehabilitate the credit of the railways clearly in evidence, a market for freight cars at least as great as that just prior to the depression would rapidly be re-established. The continued progress of intensive utilization depends on a progressive improvement in the character of the rolling stock.

Two railroads have already embarked upon car-construction programs without awaiting the end of the depression. The Baltimore & Ohio will complete a lot of 1,000 cars, about 800 of which remained to be built on a program deferred some time ago, with funds borrowed from the Reconstruction Finance Corporation. The Pennsylvania has undertaken the construction of 1,285 cars with \$2,000,000 from the same source.

Improvements To Reduce Operating Expenditures

Notwithstanding the declining volume of passenger traffic, the railways are just entering an era of improvement in the comfort and attractiveness of the long-distance travel for which they are best adapted. During the past two years air conditioning has been so adapted to both day coach and Pullman passenger-car requirements that complete control of their interior atmospheres has become entirely practicable, including freedom from dust and cooling or heating according to season, with humidity maintained at the most comfortable level. The installation of the necessary equipment has been increasing rapidly during the past two years in spite of the depression.

Adapting rolling stock to meet the changing requirements of the service, both passenger and freight, such as those mentioned above, demands a constant stream of capital expenditure, which is now reduced to a mere trickle.

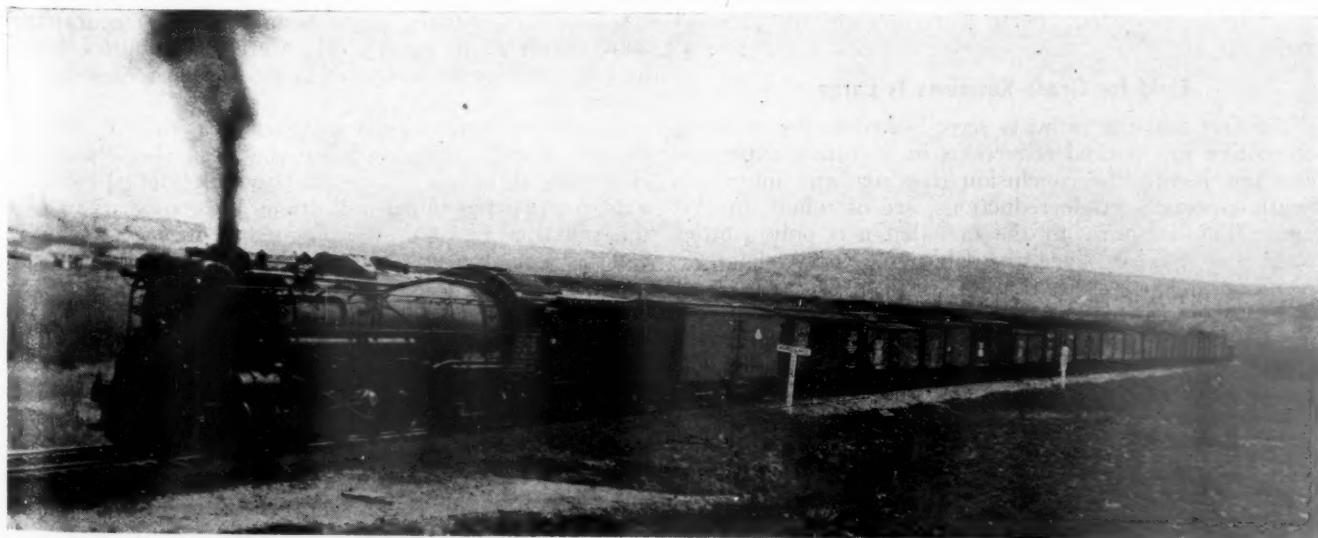
There is, however, a very large class of capital expenditures which have an even greater influence on the future of the railway industry, namely, those which are made for the express purpose of lowering the cost of railway operation. Expenditures to this end must and will continue as funds become available because it is the experience of railway managements that only through measures for lowering transportation costs is it possible for the railways to survive even in periods of normal business. This can be demonstrated by comparing the difference in the cost of operating the railroads in 1919 and 1930 (two years in which the service rendered was substantially the same) with the aggregate investment in new and improved facilities that was made from 1919 to 1930, inclusive.

The investments in additions and betterments made by the railways in the 12 years ending with December 31, 1930, amounted to \$6,750,000,000, yet owing to a conservative financial policy only \$3,244,000,000 was added to the capitalization. But in 1919 the operating expenses were \$4,400,000,000, while in 1930 they were only \$3,931,000,000. In other words, there was a reduction of \$469,000,000, in operating costs made possible by these expenditures for more modern facilities, which accrues to the public sooner or later in reduced costs of transportation service, in addition to the improvements in service effected immediately.

How Improvements Cut Operating Expenses

In what ways do improvements in the physical plant of the railways reduce their operating expenses? To answer this question it is necessary to consider these expenses from the standpoint of their three primary subdivisions—namely, expenditures for conducting transportation, for maintaining equipment and for maintaining tracks and fixed structures. Of these, the first is the most important.

It has long been recognized that one of the most important requirements for economy in moving a given volume of freight is to haul it in as few trains as possible. And since the number of tons that can be hauled by a locomotive is dependent on the power of the locomotive and the grades of the track over which the trains must move, the railways started about 50 years ago to spend money for larger locomotives and for reductions in grade. But within the last 10 years greater attention has been directed to the importance of time as an element in operating economy as well as in the character of service rendered. In other words it is not enough



Modern Locomotives Haul Heavy Trains at High Speeds with Marked Fuel Economy

to haul a given volume of traffic in the least number of trains—the speed of the trains must also be considered. As a result, “ton-miles per train-hour” and “ton-miles per car-day” have become the yardsticks for the measuring of operating efficiency.

New Locomotives Pay Large Dividends

Paralleling this change in emphasis in railway operation which has made train-hours, as well as train-miles, a matter of concern, developments have taken place in the designing and proportioning of locomotives which

as the railroad industry has been restored to solvency.

More money must be spent on improvements to the fixed properties that follow as definite corollaries to improvements in motive power and cars. In addition to the increase in the strength of the tracks and bridges that must be made concurrently with the growing weight of rolling stock, there is another group of improvements to the roadway that have a distinct bearing on the attainment of the full advantages to accrue from investments in faster and more powerful locomotives. To enjoy the benefit of greater tractive force, passing



A Modern Classification Yard Equipped With Car Retarders

have greatly increased their horsepower capacity and ability to haul full train loads at high speeds. Modern locomotives purchased within the last eight years have effected reductions in operating expenses sufficient to pay for themselves within from three to ten years. Those roads with motive power possessing modern characteristics have subjected it to intensive utilization throughout the depression and it has been a large factor in the ability of some roads to weather the storm. Last year the Lehigh Valley invested \$2,000,000 in twenty modern locomotives and they are earning a return of 38 per cent on the investment under existing light traffic conditions. But the purchase of motive power capable of effecting such economies and required to meet the demands of freight service for higher speeds has not yet proceeded far. Only 18 per cent of the locomotives in service today are less than ten years old. Programs for the improvement of railway motive power, now completely suspended, await a restoration of railway credit.

Field for Grade Revisions Is Large

The fact that the railways have looked to the modern locomotive for marked reductions in operating expenses does not justify the conclusion that roadway improvements, especially grade reductions, are of minor importance. This is shown by the fact that it is only a little more than a year since the Chicago, Rock Island & Pacific completed a \$12,000,000 project for a 72-mile line with grades of 26 ft. to the mile to replace an old line having grades of as much as 72 ft. to the mile. Likewise, less than a year ago the Missouri Pacific completed the reduction of grades on 225 miles of line in Kansas at a cost of \$7,000,000. There is scarcely a railway in the United States which does not now have in its files surveys and estimates covering from one to a dozen projects for grade and line revision and relocations that will be fruitful of large expenditures as soon

tracks and yard tracks must be of sufficient length to hold the longer trains. Similarly, the speeding up of trains, made possible with the use of faster engines, has given rise to a lengthening of engine districts, thus requiring the establishment of new terminals and the abandoning of old ones.

Signaling Program Must Go On

But the influence of modern trends in locomotive development has not been confined to such alterations of the fixed properties as were demanded by mere increases in weight and operating radius. Instead, the capabilities of the modern locomotive have given rise to a search for other means of cutting train schedules. The full benefit of faster power was not being realized fully because of the time lost in stops along the line for the delivery of train orders, to enter passing tracks, etc.; and thus almost over night, it came to be realized that the automatic signals, which had been introduced at the start purely as an agency for safety of operation, could be employed as an instrumentality for more expeditious movement.

Conceived originally with the idea that it should provide a stop indication when the track ahead was not clear, the automatic signal has been developed to such a degree that the signal indication or the message which the signal conveys to the engineman when he sees it, can be made to impart a variety of instructions and thus reduce the need for the transmission and delivery of written train orders. “Why Stop a Train to Tell it to Proceed?” is a slogan which aptly expresses this advance in the art of controlling train movements.

This, however, was but the beginning, to be followed within the last five years by the so-called “centralized traffic control” system, whereby the main-line switches as well as the signals in a stretch of line as long as 50 miles are brought under the finger-touch control of a dispatcher or train director. Sitting before an illum-

venity. to the es to dition ridges weight ments ne at- invest- To ssing inated track diagram and a controlboard, this man can visualize the conditions, carry out his moves and judge of the results with the same facility as the player in a chess game. Remarkable results have been obtained. Trains enter and leave passing tracks without stopping to open and close switches, meeting points are quickly changed to advance one train when another is delayed, fast trains are moved from one main track to another for the purpose of passing slow trains and, in general, the effect is the equivalent of an appreciable increase in track capacity. As a consequence it has been possible in some cases to postpone, indefinitely, projects for providing additional tracks, at a marked saving in cost. Owing to its recent introduction, the centralized traffic control system has as yet been applied in only a few of the locations where it can be profitably employed.

Many Yards Must be Rebuilt or Replaced

The speeding up of train movements on the line has focussed attention on the delays imposed on traffic in its movement through terminals where trains are broken up and reassembled for various destinations. This has resulted in a closer study of classification yards and a greater resort to gravity designs in which trains are pushed over a "hump," whence the cars descend under their own momentum, either singly or in groups, into the various sorting tracks that fan out at the foot of the hump incline.

Until recently these cuts of cars have been manned by "car riders" who apply the hand brakes as necessary to keep them under control and avoid collisions with cars previously switched. But within the last 10 years an

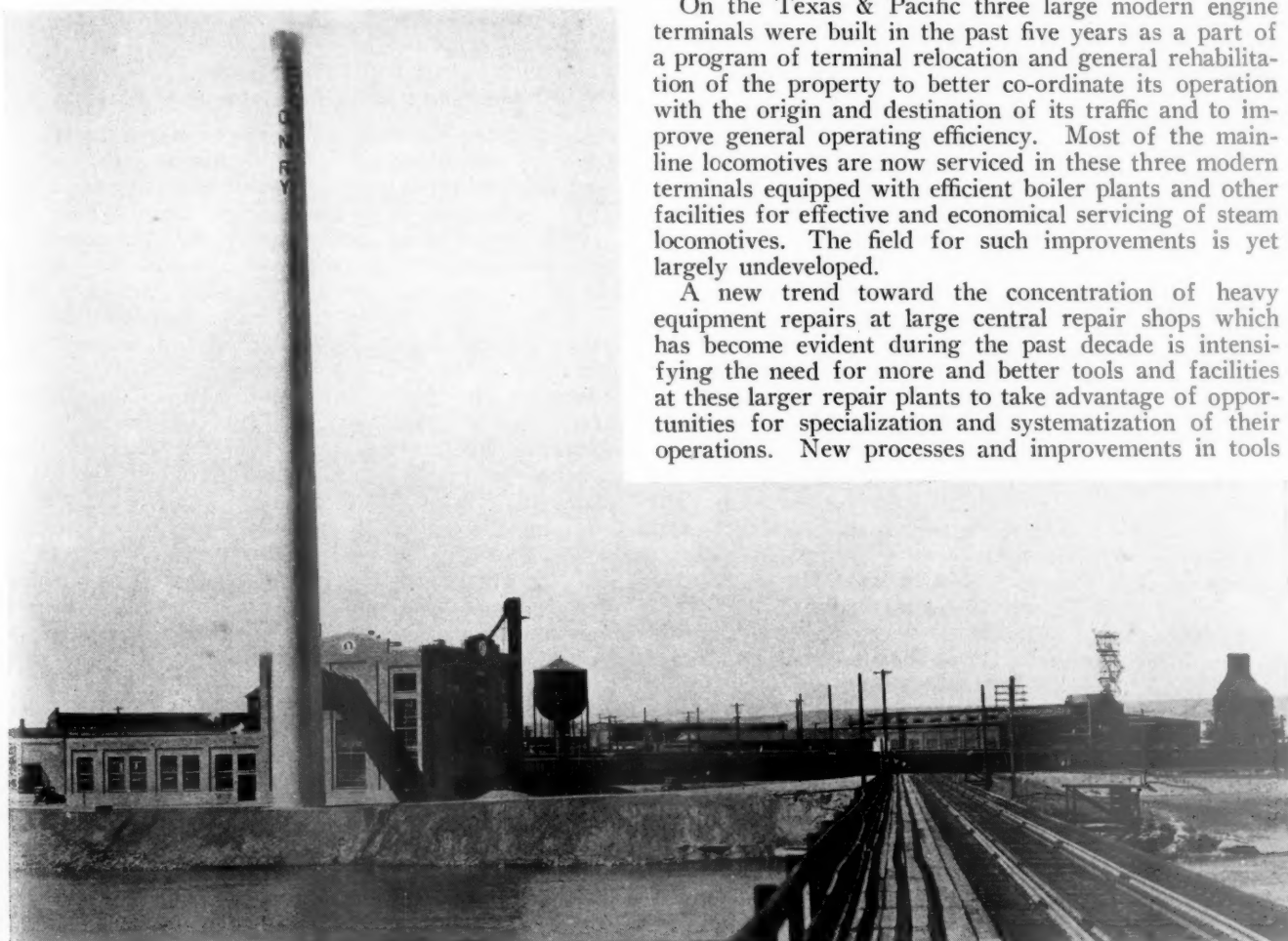
innovation in the form of mechanical means for the control of the speed of cars as they descend from the hump has created a veritable revolution in hump-yard design and operation. The "car retarder" eliminates car riding, a highly hazardous class of employment; reduces damages to cars and lading; speeds up the classification of trains; and permits of a greater flexibility in operation. Because of the savings effected—from 18 to 40 cents per car—it is possible to apply gravity operation to yards handling a smaller volume of traffic than was formerly found economical. For this reason, also, the retarders have been applied not only to new yards, but also to old ones. Here, again, is a field that warrants large capital investments.

Modernizing Engine Terminals and Shops

One of the most remarkable changes in railway operation which has taken place in the last ten years is the extension of locomotive runs. Runs which formerly seldom exceeded the length of a single operating district of 100 to 200 miles, have now been increased to 500 and 600 miles and, in exceptional cases, to 900 and 1,000 miles. This has had a profound influence on the location and operation of locomotive terminals. The Great Northern, for instance, since 1920 has reduced by 18 the number of engine terminals in operation on its lines as the result of the extension and rearrangement of its locomotive runs, and has spent well over a million dollars in new power plants, with marked savings in terminal fuel consumption, in modern coal and ash-handling facilities and in enginehouse extensions at the more important terminals where the work of servicing and making running repairs has been concentrated.

On the Texas & Pacific three large modern engine terminals were built in the past five years as a part of a program of terminal relocation and general rehabilitation of the property to better co-ordinate its operation with the origin and destination of its traffic and to improve general operating efficiency. Most of the main-line locomotives are now serviced in these three modern terminals equipped with efficient boiler plants and other facilities for effective and economical servicing of steam locomotives. The field for such improvements is yet largely undeveloped.

A new trend toward the concentration of heavy equipment repairs at large central repair shops which has become evident during the past decade is intensifying the need for more and better tools and facilities at these larger repair plants to take advantage of opportunities for specialization and systematization of their operations. New processes and improvements in tools



Changed Operating Methods Require Modern Engine Terminals

and equipment are providing a lucrative field for a steady flow of capital to be invested in a great variety of machines and specialized equipment. Last year the Chicago, Milwaukee, St. Paul & Pacific, by the installation of canopy-type exhaust hoods to permit the full utilization of spray painting on its passenger-train cars with an investment of about \$40,000, was able to effect a saving at the rate of \$12,000 to \$15,000 a year in its Milwaukee car shops.

Railways Must Improve Water and Fuel Service

There is a constant demand for new and better facilities to supply fuel and water to locomotives, because locomotive performance and train operation are vitally affected by the efficiency of these facilities. The mechanical department has been responsible for a reduction in the number of train stops for water and coal or oil by providing tenders of greatly increased capacity, but with this has come a marked improvement in roadside and terminal facilities that insures greater reliability and speed in delivery, and attractive reductions in the cost of operating and maintaining these service facilities. However, the most outstanding advance concerns the improvement in the quality of the water furnished. Chemical treatment of the water, either in roadside facilities, in the locomotive tender, or the boiler, presents a large field for economies which have been demonstrated repeatedly in the results obtained on those roads which have given extensive attention to this problem. Returns of as much as 50 per cent per annum on investments in such treating plants are not uncommon and afford the incentive for further expenditures in this field.

Will Invest Money in Stronger Tracks

The current depression has interrupted a program for the strengthening of the tracks and roadway structures that must be resumed in the interest of efficient railway transportation. In the past, the roadway department endeavored to keep abreast, or at least remain not far behind, the motive power department in providing tracks that were strong enough to carry equipment of steadily increasing weight. Now, thanks to scientific and economic studies of the track structure, it is no longer a matter of building tracks that are just strong enough to provide an adequate margin of safety, but of constructing tracks of such design as to obtain the lower annual cost, taking into account both the carrying charges on the investment and the cost of maintenance. As a consequence the railroads have been engaged for the last few years in a concerted program for a stronger and more economical track. The fact that the mileage of track laid with rail weighing 130 lb. per yard increased from only 2,654 miles in 1921 to 16,534 miles in 1930 is indication both of the progress that has been made and of the marked potentialities of expenditures for heavier rail as a field for further investment.

Increase in the weight of rail also calls for new track fastenings, new frogs, switches, crossings, etc., while proportionate economy in the maintenance of these auxiliaries demands better designs and better materials. The fact that the railways bought only 43,737,809 cross-ties in 1931, compared with 81,341,663 in 1929, shows two things. It is conclusive evidence of the marked increase in purchases that must be made eventually to make good a deficiency in renewals, but it is also a demonstration of the benefits of timber treatment. Fifteen years ago a corresponding deficiency in tie renewals would have precipitated a terrific dilapidation of the tracks, while today on most roads it means only an unfortunate deferment of maintenance. The benefits derived from the preservative treatment of wood have

served but to intensify the search for further practices designed to prolong the life of the cross-ties. The railways, generally, are merely awaiting the opportunity to invest in heavier tie plates, rail anchors and other improved appliances in order that they may enjoy the benefits already gained therefrom by some of the more forehanded managements.

No development in track construction has received closer attention in recent years than has roadbed drainage. True, the importance of drainage has been recognized for years, but new products and new processes of application, all of recent introduction, have made it pos-



The Resumption of Active Construction Work Will Open a Market for Modern Grading Equipment

sible to correct poor drainage in the face of what were formerly almost insurmountable obstacles. The result has been to greatly stimulate activity in the field, but all too short a time has elapsed since this development was set in motion. Hundreds of drainage projects still await the restoration of railroad credit.

Mechanization of Maintenance of Way

One of the outstanding developments of the period since the end of federal control is the progress that has been made in the mechanization of maintenance of way work. Whereas the bridge derrick, steam ditcher and the pile driver were until recently the only power appliances employed, the aspect of this work has entirely changed. Track and bridge gangs are carried to their work on gasoline-driven track cars, rails are laid with power cranes, ditches are deepened and widened with powerful plows (spreader-ditchers), ties are tamped, spikes are driven and pulled, and bolts are turned with electric and pneumatic wrenches. Weeds are killed with chemicals and burners, and snow is removed from switches by melting devices. Power is also used to adze ties, saw off piles, bore holes and clean ballast. The general adoption of these tools is by no means complete, because changes in organization necessary to insure the greatest economy from their use are a rather recent development, but the progress made to this end is such as to insure a much more extensive use of power tools as soon as funds can be secured for their purchase.

It has often been said that some railways are always too poor to practice economy, which means that they are unable to make the capital expenditures necessary to obtain real economy in operation. And because they are, therefore, unable to earn a return on rates that are reasonably remunerative for their more efficiently operated competitors, they become the victims of a vicious circle. It is not too much to say that all the railways are now in this predicament, for only as they are enabled to resume their expenditures for improvements can they continue to live and to function as an effective transportation agency so necessary to commerce.

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PUBLIC ACTION NEEDED...

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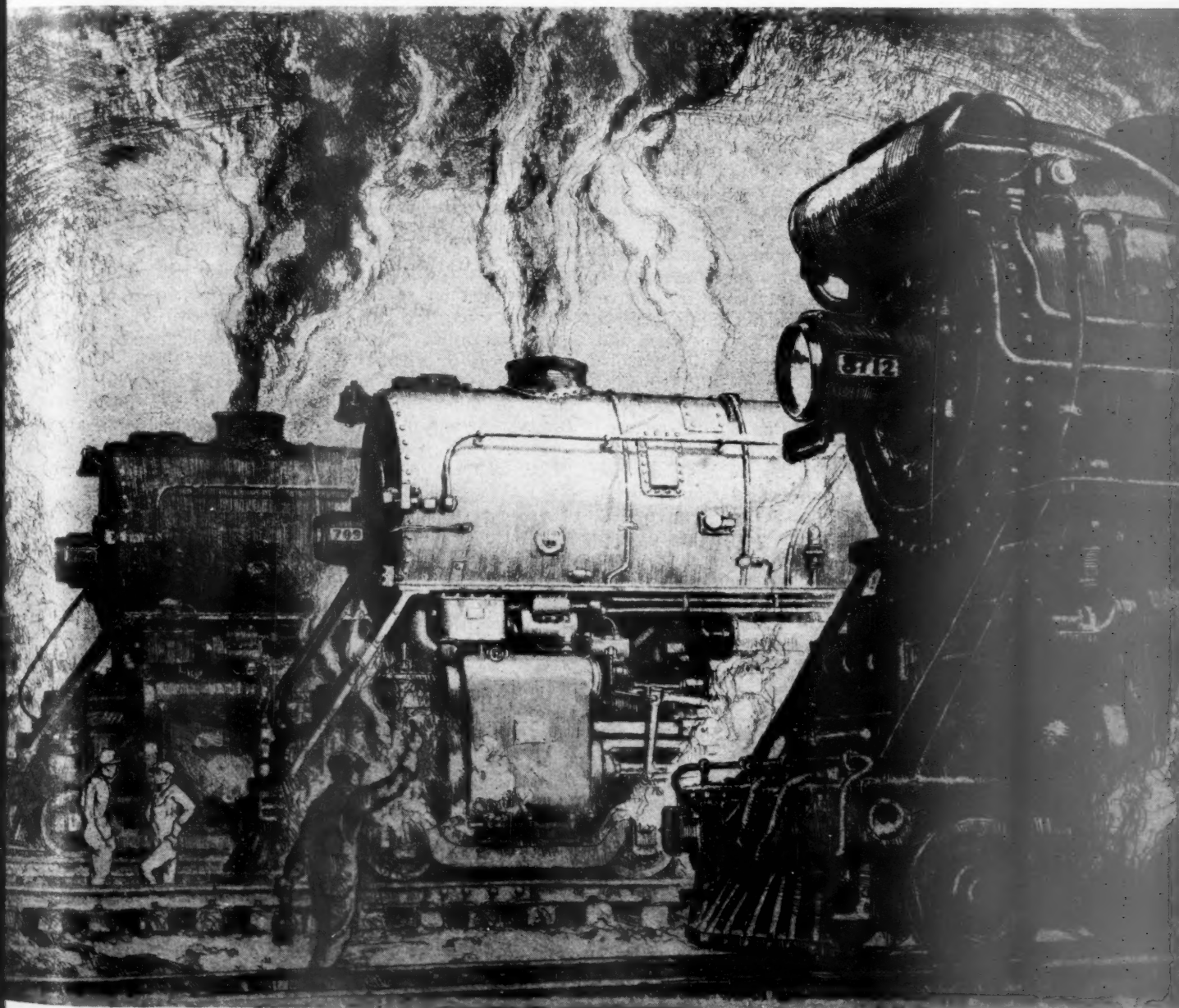
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g by O. Kuhler—Published by The Schwartz Galleries, New York



Less Regulation for Railways

Reduced participation of government in management
would allow competition on equal terms

A MENDMENTS to the Interstate Commerce Act made by the passage of the Transportation Act in 1920 having failed to solve the railroad problem, there is now general agreement that consideration must be given to further revisions of the laws under which the railroads are regulated. If the difficulty is in the laws, because they were not made adaptable to changed conditions, certainly they ought to be changed, but even if it is in the administration of the laws there appears no way of bringing about any radical change without some modification of the statutes.

Experience has demonstrated that regulation has failed either to afford the railways the protection contemplated by the law or to protect the public against discrimination in transportation, and that unless comparable regulation is to be applied to other types of carriers there will be a repetition of many of the evils which regulation was intended to correct. Comparable regulation can be accomplished either by reducing regulation of the railways, or by increasing regulation of the service and rates of highway and water transportation, or by both.

Reversal of Recent Policies Advocated

The remedy now advocated by many students of the problem contemplates a reversal of some of the policies of the 1920 legislation and a relaxation of some of the federal regulation as applied to railways, unless similar regulation is to be applied to their competitors.

The Transportation Act represented a more or less paternalistic solution of the railroad problem, under the benevolent despotism of the Interstate Commerce Commission under private operation, but under control by the government almost as strict as if it owned the railroads. To a considerable extent it proposed to substitute regulation for competition among the railways, although it also provided that in building up the proposed consolidated systems competition should be preserved as fully as possible. However, it made little provision for outside competition, except that, on the assumption that the railway system was to be maintained in a condition of approximate prosperity, it attempted to protect water carriers against any possibility of too effective railway competition, giving the Interstate Commerce Commission power to prevent reductions in railway rates. If the water lines should engage in cut-

throat competition, that was not the commission's lookout. Such competition as that later developed by automobiles, buses, and trucks, was of course not provided for.

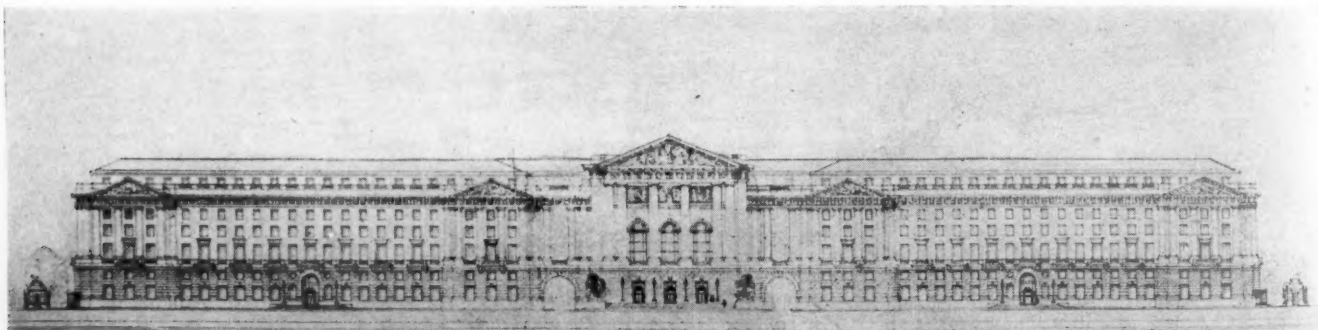
Rates and a "Fair Return"

The Interstate Commerce Commission has advocated a more "flexible" substitute for the "fair return" rate-making rule in Section 15a of the law, under which it would be directed to try to make rates "adequate" over a period of years, without reference to any percentage of fair return on the value of the properties. Even if Congress does not follow this recommendation nothing could be much more flexible than its interpretation and administration of the present law has been. If the only part of the law that attempts to impose some responsibility on the commission is to be flexible it would be only fair that there should be some flexibility in some of the requirements of the law that bear upon the railway companies.

Fair Return Depends on Proper Rate Adjustments

No one is contending that the railways are not entitled to approximately a fair return in the long run and a fair return can only be produced by a proper adjustment of rates to that end. If rates have been either too low or too high they should be readjusted, perhaps by raising some and lowering others. As matters stand the railways can argue that government regulation has hindered them from earning more than they have because it has interfered with or delayed in many ways both increases and decreases they have proposed for the purpose of increasing their revenues. Since the policies that have been in effect have not worked satisfactorily, why not give the railways an opportunity to demonstrate the correctness of their views by according them some of the same freedom to manage their own affairs that managers of other kinds of business have, and an opportunity to compete on even terms with other carriers?

Most of the proposals now being made are intended to relieve them of some of the requirements imposed on the theory that they represented a monopoly, which, if it was ever true, are certainly no longer necessary when they are beset with government-aided competition on every hand. Others are suggested only for the purpose of making somewhat more equal the conditions under which this competition is to be conducted.



The Scene of More or Less Transportation Regulation for the Future—New Building Now Under Construction in Washington for the Department of Labor (left) and the Interstate Commerce Commission (right)

Repeal of the recapture clause retroactively is urged in many quarters because it was put into the law as an offset to the fair return rule on which the government has not made good. Discontinuance of a large part of the valuation work has been proposed on the ground that if valuation is not to be or cannot be used as a basis for rate-making it is not worth the time and expense it causes, and that it has become manifest that if it is ever to be used for that purpose it will be necessary for the courts to determine how it shall be made.

As rate-making has always been the principal field of regulatory activity, it also offers the greatest opportunity for a return to the railway officers of the scope for greater initiative, especially since the primary need of the railways just now for a greater volume of traffic has given a new importance to the need for a body of rates flexibly responsive to changing conditions. Therefore several modifications in present laws have been suggested to curtail the activity of the commission in its capacity of traffic manager of the railways and to restore more of that function to the railway traffic departments.

Repeal of Recapture Necessary

Retroactive repeal of the recapture clause, under which the Interstate Commerce Commission is directed to collect one-half of the net railway operating income of any railroad system in excess of 6 per cent for any year since 1920, would tend to improve railway credit by relieving it of a cloud now hanging over it and save both the commission and the companies a large amount of time and expense which, if the law should be retained, would still be required to complete the recapture investigations. It would also eliminate the probability of a great deal of litigation as to the commission's methods of calculating the excess income and of establishing the valuations on which they are based. The commission has made public a rough estimate by its Bureau of Valuation placing the possible recapture liability of about half the railways at approximately \$360,000,000 for the period 1920 to 1930, but these estimates are known to be rather high because as to many of the roads it was necessary in preparing the estimate to take the pre-war valuation and bring it up to date by adding subsequent net additions and betterments at cost, because of the lack of other available data. This was substantially the method condemned by the Supreme Court in the St. Louis & O'Fallon case. The bureau has estimated that it would take until 1935 to complete its recapture investigations up to 1930.

Effect on Confidence of Investors

The cloud over railway credit is not represented merely by the \$360,000,000 estimate, however. The real cloud is the effect upon the confidence of investors of this continued effort to enforce the recapture clause of Section 15a when the fair return rule, of which it was a part, has been so nearly ignored. Very few of the roads could pay the amount of the recapture claims if they were presented now in final form. Although the tentative reports issued recently are accompanied by an order directing payment of half the excess found, the filing of a protest within 40 days operates as a stay of the order pending a hearing. The roads could not have

set aside reserves for the purpose because they could not know the amount until the commission made its finding as to the value. Since the average road has for nearly thirteen years received considerably less than the fair return, it is unfair to enforce the recapture for the few particular years in which some roads may have received unusual earnings.

Repeal of this law would tend to strengthen confidence in the future of the railways by holding forth the possibility that they may at some time be able to earn enough to recoup some of their recent losses. It would at once relieve the commission of the duty of completing valuations for each year for each company whose accounts indicate a possible excess above 6 per cent on its value.

R. F. C. Loans Equal Estimated Recapture Liability

The first final recapture report issued by the commission, in the O'Fallon case, in which it outlined the methods it proposed to apply in valuing other roads for recapture purposes, was set aside by the Supreme Court in 1929. The O'Fallon decision settled only one of the many important questions with which the whole valuation controversy bristles. The next final decision of the commission, representing a revised basis, was issued in 1930 in the case of the Richmond, Fredericksburg & Potomac and is now on its way to the court. Meanwhile one bureau of the commission is holding hearings,

of which several are going on most of the time, on the protests filed by the roads against the reports already issued, while another bureau has spent much of its time this year in passing upon the applications of some of the same roads for loans from the Reconstruction Finance Corporation. The commission has now approved an amount in loans for one year just about equal

to the estimated recapture liability for eleven years.

The commission has a list of 456 railroads which its estimates indicate earned more than 6 per cent for one or more years of the period since the law was passed in 1920. Only a few of these roads show even estimated excess for most of the period. They are the coal-carrying roads serving the Pocahontas district and several of the ore-carrying roads controlled by the United States Steel Corporation, which by specializing in the handling of a concentrated tonnage in unusually heavy trainloads have been able to operate profitably at very low rates.

Excess Earnings Since 1920

The estimates include \$336,000,000 for 90 Class I railways (those earning \$1,000,000 or more a year, gross). That means that about half of the Class I roads are not even suspected of prosperity in any of the years since 1920, because from 180 to 200 roads for most of the period have been in Class I. There are only 170 that earned a million dollars last year. The estimate also includes \$24,000,000 for the smaller roads earning less than \$1,000,000 a year. Some of them have been abandoned since the time when they had a year or two of exceptional earnings. The unusual earnings of some of them were swelled for a time by the transportation of the road-building materials that went into the parallel

**Railway legislation has failed.
Retroactive repeal of recapture clause recommended.
Valuation Act of 1913 should be repealed.
Railroads should be allowed to engage in water transport.
Rate adjustments should be made more flexible.
Suspension power should be withdrawn.
All types of common carriers—rail, water, highway and air—should be subject to similar regulation.**

highways that recently have been helping to put little roads and branch lines of big roads out of business at the rate of about a thousand miles a year.

Valuation a Needless Expense

Complete repeal of the valuation act of 1913 now would leave the commission with far more information as to the value of the railroad property—either on the basis of probable original cost or the basis of cost of reproduction at any particular period—than it has ever been willing to be governed by as a basis for calculating what would be a fair return for the railways. The railways have not suggested that all valuation work be discontinued but merely that the commission shall preserve in its archives all documents and papers connected with work so far done by it under the valuation law and for the future keep itself informed of all new construction, extensions, improvements, and retirements of property and all changes in the investment, so that it will at all times have available the basic data from which to construct a valuation at any time it should be needed. This would save most of the time and expense involved in the present valuation work.

Amendment of the law to provide merely for keeping up property records would give the commission and the railways material from which complete valuation could be made at much less expense than is now required for both the railways and the government. To complete the present valuation as of any given date would continue the expense for several more years.

The commission has completed the primary valuations of all the roads in existence when it began the work, as of various dates from 1914 on, depending upon when the inventory was begun on a particular road, and is now engaged in bringing them down to a recent date, taking into account changes in the property and trying to take some account of the wide fluctuations in costs which have occurred since the work was started. If it should be necessary to continue to bring the valuations down to date for each road separately the result will always be in arrears, although the commission has stated that a total valuation figure could be prepared in an ex parte way for the roads as a whole in about sixty days if desired. The commission already has a very satisfactory survey of the relation between capitalization or investment and value, which was undoubtedly the principal original purpose of the valuation act, and the only important use for a valuation brought down to a finer point is to enforce the recapture clause which the commission has recommended be repealed.

Rates Made Without Much Relation to Valuation

Rates have been made for many years without much relation to valuation and it is apparent that for some time to come economic conditions and the question of "what the traffic will bear" will have a far more important effect on rates than the results of a controversial valuation which is still to be reviewed by the courts. The commission desires to complete its valuation as of some specific date and to have it available as a weapon of defense if the railroads should attempt to attack its rates in the courts as confiscatory, but in a confiscation

case the courts would undoubtedly decide what basis of valuation should be applied to the property inventory in the hands of the commission.

Railways Should Be Allowed to Engage in Water Transport

Carriers on the Mississippi river and its tributaries are enabled to carry a great deal of tonnage formerly handled by the rail lines because the government furnishes them toll-free a water right-of-way. At the same time, however, the government prohibits the railroads from taking advantage of the same opportunity to engage in transportation service on the government highways. This prohibition was originally applied by the Panama Canal act of 1912, which put a stop to operation by railroad subsidiaries through the Panama canal and under which the commission required the railways to cease operations on the Great Lakes.

Repeal of such laws would make it possible for the railways to engage in water transportation in conjunction with their present service, all subject to regulation, and divert some of their heavy low-grade tonnage as to which speedy movement is not desired. With their extensive traffic organizations they would doubtless be able to develop in time an extensive water traffic on an economic basis, whereas much of the present water transportation derives its existence largely from low rates

caused by cut-throat rate competition and made possible in part by exemption from taxation. If the prohibitions against the railways were removed it would be expected of course that they would pay the tolls charged any other water carrier and that they would be taxed on floating equipment. The government would then derive some return from its investment in waterways.

In the Inland Waterways Corporation Act, of 1924, which was amended in 1928 by the Denison Act, a provision was inserted that the facilities of the Inland Waterways Corporation shall not be sold or leased to any carrier by rail or to any person or company directly or indirectly connected with any carrier by rail.

Unfair Handicaps in Rate Division

The Denison amendment also provides that after the Interstate Commerce Commission has issued a certificate of public convenience and necessity to any carrier authorizing it to operate on the Warrior or Mississippi rivers or their tributaries, it shall thereupon by order direct all connecting common carriers and their connections to join with such water carrier in through routes and joint rates, fixing differentials between rail rates and the joint rates. It may also require the interested carriers to enter into negotiations for the purpose of establishing divisions of the joint rates and if they are unable to agree within 120 days it is given power to fix the divisions itself.

Under these provisions railways are required to divert to their already subsidized competitors traffic which they could haul over their own rail lines, and in the negotiations over the divisions of the through rates, to determine the share which each carrier shall receive out of the joint rate, the government Inland Waterways Corporation has been insisting on allowing the rail line

Continued effort to enforce recapture, while the fair return rule is ignored, is a menacing cloud over railway credit.

Average railroad has for nearly 13 years received considerably less than the fair return.

Unfair to enforce recapture for the few years in which some railways may have received unusual earnings.

Recapture orders indicate that about half of the Class I roads are not even suspected of prosperity in any of the years since 1920.

even less than it would have received for a local haul over its own line up to the river point.

Repeal of such requirements would remove an unfair handicap against the railways and an unfair advantage now given to their competitors.

Transportation Goes Wet While Regulation Remains Dry

Prior to the World War the rate structures of the railroads had been shaped to a large extent by the force of competition between the railroads and vessels operating on the rivers and other inland waterways, the oceans, the Gulf of Mexico and the Great Lakes, and between railroads serving rival markets. Under the new powers conferred on the commission by the 1920 legislation it has been gradually placing the rail rate structure on a "dry-land" basis, largely ignoring water competition, and attempting to formulate it into a "logical system," during a period in which a new form of transportation operating on public highways has been reintroducing the same kind of competitive disturbances formerly caused by water. At the same time new water services developed through government aid have been penetrating more intensively into the "dry land" area and trucks are extending the influence of waterways still further inland.

For example, the competition of barges on the Mississippi river for the cotton traffic formerly handled largely by railway did not become especially important until the trucks began hauling large quantities of cotton to the river towns. In a report recently issued by the I. C. C. examples were cited of the transportation of wood pulp from Sweden via the Mississippi and Ohio rivers from New Orleans to Cincinnati and thence by truck to Hamilton, Ohio; and of the same commodity from the Pacific Northwest via the Panama canal and ocean routes to New York, the New York State Barge Canal and the Great Lakes to South Haven, Mich., and thence by truck for the few additional miles to Kalamazoo, Mich.

Attempts to prevent railway discriminations by government regulation while the government itself was discriminating against railways have proved about as successful as wet-drinking and dry-voting prohibition.

Unless regulation is to be applied to transportation as a whole, and not merely one kind of transportation, the freight rate structure so elaborately worked out by the commission since 1920 must give way to changing conditions. In both cases just cited the commission has allowed the roads to make rates to meet the new competition but not until after it had developed to extensive proportions. Government supervision of rate-making need not be abandoned but restrictive laws must be modified not only to avoid delay but to enable the railroads to confine their readjustments to the points affected and not require changes in other rates where substantially similar circumstances and conditions are not present.

What the railways need is to be allowed by law more freedom to make their own rates to meet such conditions without the delay of prior investigation by the commission, although subject always to review and, if necessary, correction by the commission. This would mean

that the demonstration would be made by actual experience instead of by the present process of sifting conflicting testimony received at long drawn-out hearings.

Modification of existing laws pertaining to discrimination to allow the establishment of rail rates on particular commodities where the competition of other agencies of transportation creates special conditions, independently of rates on other commodities or of relationships with other rates, would make it possible for the rail lines to retain traffic which is now deserting them by meeting the new competition where it exists, perhaps experimentally without pulling down rates through a much wider area which has been covered by a commission investigation.

Most of the questions entering into the determination of whether a railroad rate is or is not reasonable or unduly discriminatory necessarily rest on judgment. If the laws could be changed to show that it was intended to allow a reasonable latitude for managerial discretion (at least in meeting unregulated competition), instead of making the judgment of the commission the only criterion, it would not be necessary to spend so many months in litigation on what ought to be a matter of business judgment. For example, the commission's revision of the rates on cotton had hardly gone into effect in 1931 when the railways informed it that the

trucks and river barges were getting a large percentage of the cotton moving to New Orleans and asked a modification of the order to enable them to reduce rates to New Orleans without observing the fixed relation prescribed between New Orleans and Mobile. The commission, after consideration, made the necessary modification of its order and authorized the roads to cut their

rates down to 65 per cent of those it had prescribed.

There seems to be that much lee-way in the definition of a reasonable rate on occasion. But even this was not enough, and the southwestern railways soon proposed to reduce the rate as much as 50 per cent on condition that the cars be loaded to something like capacity. In this case the commission, in order to expedite the settlement of the question, called an informal conference in August before the rates were to become effective and decided not to suspend the tariffs, although it had received many protests, but the railways had already lost most of the cotton traffic.

Railroads' Hands Tied

No suggestion is being made that railroads should be given a free hand to create new discriminations. Railway officers are merely asking opportunity, when they find that some of their shippers are shopping around for barge or truck transportation, to try to sell rail service by offering some inducement to continue to use the rails, at perhaps a slightly higher rate than the water-truck rate, or to experiment with a new service more adapted to the demand without being compelled to make the experiment universally applicable. If there is discrimination it has already been caused, and possibly there would not be so much discrimination if the railways were in a position to retaliate without first obtaining a government permit to do so. The barge lines

Carriers on inland waterways are able to attract a great deal of tonnage formerly handled by the railways because the government furnishes them toll-free a water right-of-way.

Railways are required to establish divisions of joint rates with these water carriers and thus must divert to their subsidized competitors traffic which they could haul over their own rail lines.

Meanwhile the I. C. C. has been largely ignoring water competition in its recent attempts to revise the rail rate structure into a "logical system."

recently have indicated some reluctance to keeping their rates the customary 20 per cent below some of the new rail rates, although in the past they have often cut below that figure.

If competition on equal terms will not work because it causes too many rate wars, perhaps then it will be time to talk about the creation of a super-commission, having jurisdiction over all forms of transportation under a law directing it to see that all regulation shall be just, reasonable and non-discriminatory "as nearly as may be."

Section 1 of the Interstate Commerce Act declares that all charges for service shall be "just and reasonable," Section 2 prohibits "unjust discrimination" against persons, and Section 3 declares unlawful any "undue or unreasonable" preference or advantage or prejudice or disadvantage to any particular person, company, firm, corporation, locality or description of traffic, the interpretation of these adjectives being left to the Interstate Commerce Commission. Some amendment of Section 3 to indicate that varying circumstances and conditions may justify differences in rates would enable the railways to adjust particular rates without making so many wholesale changes elsewhere. Section 2 already contains such a qualification.

In the "long-and-short-haul" clause of Section 4, however, Congress sought to pick out one type of discrimination which it thought was wrong by declaring it unlawful to charge more "for a shorter than for a longer distance over the same line or route in the same direction, the shorter being included within the longer distance." Repeal of this clause or its amendment so as to permit railways to make sub-normal rates to meet water competition when they think they can gain additional revenue by so doing, without making correspondingly low rates at intermediate points where low water rates are not available, would make it possible for them to sell some of the excess capacity which most of them have had most of the time, in competition with water lines operating either on the natural ocean highways or the rivers and canals.

For many years railways were able to operate under this law because qualifying language had been inserted making it applicable only "under substantially similar circumstances and conditions," but later the law was changed to authorize "fourth section departures" only at the discretion of the commission and in 1920 the commission was prohibited from authorizing such relief unless the rate to the more distant point is "reasonably compensatory" for the service performed.

Poor Business Judgment

Since then, pursuant to its "dry-land" rate policies, the commission has gradually withdrawn its authorizations to the transcontinental roads that have lost so much traffic to the Panama canal lines as well as the southern roads that are almost surrounded by water and operate in a territory where there are 13,000 miles of more or less navigable rivers. For a time the freight moving from the Middle West back to the Atlantic seaboard to get the benefit of low ocean rates to the Pacific coast

tended to replace some of that which the eastern roads had formerly handled on its way West, but now a large part of it is moving via the Mississippi river to New Orleans and thence by the canal, or by the Great Lakes and the New York Barge canal.

Refusal by the commission to permit reductions to a point nearer the rates of the Panama canal lines has been based on its opinion that such rates would be less than "compensatory" for rail service and thus throw a burden on other traffic. That is, it took the position that the railway traffic managers wanted to lose money for the fun of carrying freight to the Pacific coast and then wait around to see if the commission might sometime transfer the loss to some other traffic. The railways believe that a rate that brings in more money than it adds to the expense of operating a plant now partly idle can hardly throw a greater burden upon other traffic than a rate that moves no business.

Statutory Directions Impractical

The rapid obsolescence of the commission's new "dry-land" rates is illustrated by an application filed with the commission on November 10 in which the railways asked authority to publish all-rail rates on a long list of commodities on which they said their traffic was "fast disappearing," between all ports on the Mississippi, Warrior, Ohio, and Illinois rivers served by the Inland

Waterways Corporation and the American Barge Line, based on 125 per cent of the port-to-port all-water rates of the barge lines. The barge rates have been supposed to be based on 80 per cent of the all rail rates between the same points, but in many cases they have gone far below that figure and the railroads asked special authorization to let their rates follow those of the barges on the kinds of traffic which the barges have

been taking in great volume, without disrupting the rate structure built up by the commission as to points where "the competitive influence is not in attendance." This application demonstrates the impractical character of the statutory directions now given the commission in the "long-and-short-haul" clause. How can the commission say whether a given percentage of a fluctuating water rate is or is not compensatory?

If allowed to decide for themselves whether a rate would probably prove compensatory or not the railways could, by making rates somewhat higher than those of the steamship lines through the Panama canal or of the barge lines, win back a share of the traffic they have lost and increase their earning with comparatively little increase in operating expenses. Recently they have filed several important "fourth section applications" to meet the river barge competition and it remains to be seen what attitude the commission will take. If it does not grant them, some railway men believe it will be necessary to make the reductions anyway and apply them also at intermediate points.

If the law could be repealed or amended to remove the necessity for first awaiting the development of new water competition and the loss of rail traffic and then applying to the commission for a "fourth section relief" order, the matter would not come before the commission

Determinations as to the reasonableness of rates are largely matters of judgment.

Reasonable latitude should be allowed for managerial discretion, at least in meeting unregulated competition.

With the judgment of the I. C. C. the only criterion as to the reasonableness of rates, it is necessary to spend many months in litigation on what ought to be a matter of business judgment.

There is no suggestion that railroads should be given a free hand to create new discriminations—they merely ask opportunity to try to sell rail service or to experiment with new services.

except upon a complaint of an aggrieved shipper. The question would then be determined by the commission just as in any other discrimination case. It would hear testimony and decide as to whether the water competition was of such extent as to justify a reduction of particular rates without asking wholesale reductions elsewhere. Protection would be afforded the public against any danger that railways will try to destroy water competition, by reducing rates and then increasing them after the disappearance of water transportation, by the requirement in the present law that rates lowered to meet water competition may not be subsequently raised except upon a showing of changed conditions other than the disappearance of competition.

Suspension Power Kills Initiative

Water-competitive rates are by no means the only ones affected by the fourth section. Because of the numerous competitive rail routes existing between almost any two important points, it is practically necessary, unless the shortest line is always to be given a monopoly, that through rates be adjusted with relation to each other, and the commission has issued thousands of orders authorizing "fourth section relief" to avoid the necessity of changing too many intermediate rates. Elimination of the requirements of the present law and the necessity for special authorizations which complicate almost all important rate revisions, would greatly reduce the "red tape" of rate regulation.

One of the most important of the powers exercised by the commission which tends to stifle the initiative of railway managements in adapting themselves to changed conditions is its power, conferred in an amendment to the law passed in 1910, to prevent new rate schedules from going into operation by suspending them for seven months, either on protests or on the commission's own motion, pending an investigation as to whether the change is justified. This should be repealed, until similar provision is applied to competitors on the highway and by water. This would enable the railways to plan with some assurance for rate changes on the usual statutory notice, or to experiment with various rate adjustments, to meet the competition of trucks, barges, and steamships whose operators are now free in most cases to change rates at will and without prior notice or to make "confidential" rates. The very fact that railways were known to be able to meet competition would probably tend to restrain their competitors from cutting rates too freely. The suspension power was originally given the commission to head off a general advance in railway rates at a time when it was considered that the railway system had more or less of a monopoly of transportation. This year more than half the tariffs that have been protested proposed reductions in rates. In several recent cases the unregulated barge lines have been among the most active protestants against reductions proposed by the rail lines. Railways also protest against each other's rates.

In one recent case, after having held up a rate reduction by suspension proceedings for six months, the commission said: "Here respondents are endeavoring to meet a situation through rate reductions which in their

opinion justifies such action. Although they are unable definitely to inform us as to possible losses of traffic, the matter of initiating rates is one which rests primarily with the managers of the railroads, and they should not be required to defer revision of their rates until they can show substantial losses of traffic to competing transportation agencies . . . We are satisfied that competing transportation agencies are available; that respondents were justified in taking such steps as they felt might be necessary, and that this course should not be interfered with unless it is clearly shown to result in a violation of some provision of the law we administer." It is suggested that such sentiments find specific reflection in the law itself.

More Flexible Adjustment of Rates

Some of the methods with which the railways have been experimenting in their efforts to adjust their rates more flexibly to new commercial conditions without applying similar changes universally are: The publication of special commodity rates; reductions by means of exceptions to classifications; publication of more liberal rules allowing shipment of mixed carloads of various commodities at carload rates; use of container and compartment cars; transporting truck bodies loaded and empty by rail; store-door and pick-up service, and changes in classifications to eliminate fine distinctions, precise packing specifications, etc., which are not observed in truck transportation. In several instances railways have undertaken such experiments in an effort to hold traffic only to have the tariffs suspended and see their traffic dwindle.

Withdrawal of the suspension power would also enable railways to increase rates in some instances and to find out by actual experiment, instead of by testimony at a hearing,

the effect of the increase on the movement of the traffic. If they found that their previous estimates were incorrect the rates could be reduced again.

Minimum Rate Power Gives Advantage to Competitors

Much of the commission's power to establish specific relationships in rates which have hampered the competitive situation of the railways is derived from the provisions inserted into the law by the Transportation Act authorizing it to prescribe either maximum or minimum rates or the specific rates. Before that time its power was limited to prescribing maximum rates. The power to fix a minimum below which a rate should not go was conferred for two reasons. One was to prevent the railways from interfering by their own action with the efforts of the commission to develop a rate structure that would produce a fair return. The other was to curb the power of the railways to make competition too hot for water transportation, which the act said it was the policy of Congress to "promote, encourage and develop." The commission has been very sparing in the exercise of the direct power to prescribe minimum rates as such. The effect has come rather through the power thus conferred upon it to find that a given rate shall not exceed another rate by more than a specified amount or to suspend a reduced rate as being unreasonably low. Repeal of the minimum rate provisions and giving the

Suspension power of the I. C. C. stifles the initiative of railway managements.

Unhampered by it the railways could plan rate changes with some assurance that such would be effective.

If it were known that railways were thus empowered to meet competition, such knowledge would perhaps tend to restrain their competitors from cutting rates too freely.

Withdrawal of the suspension power would also enable railways in selected instances to study the effect of increased rates on the flow of traffic.

commission power only to prescribe maximum reasonable rates would tend toward equalizing the competition between railways and other carriers until similar regulation is applied to them.

Authority to Make Prompt Rate Changes Needed

If the railways were able to make rate reductions on shorter notice, without the necessity for appealing to Washington in each case, they would be able to obtain a considerable amount of traffic, including important occasional shipments, by quoting promptly a rate that would get the business, whereas they often now lose traffic on which they are asked to bid because of their inability to make quick changes.

Section 6 of the Interstate Commerce Act, now requires the railways to file with the commission complete schedules of all their rates, fares, and charges, and that no change may be made except after 30 days' notice. However, the commission may, in its discretion, modify the requirements. Such requirements, of course, were imposed to prevent sudden changes of rates being made to favor one shipper, who could be forewarned, over another, but now that so large a part of the transportation service is performed by other agencies not subject to such regulation, the object sought to be gained is no longer accomplished.

Railways are constantly being asked to revise their rates to meet the new competition, often to protect the shipper who is largely dependent upon rail facilities but is in competition with others in a position to avail themselves of other service, but even if the desired change is made the competitive carriers are free to change their own rates without notice and thus render futile the change made by the railway. The railways are put to

great expense in preparing and maintaining elaborate tariff files, all in accordance with detailed commission regulations, while knowing that their competitors are relieved of such expense and often make their own rates in relation to the published rail rates.

It is true that the commission has been fairly liberal, especially in the past two years, in granting special "sixth section permission" orders authorizing changes in rates on less than 30 days' notice, to enable railways to reduce rates to meet competition, but, as the law now stands, in many instances its traffic organization finds it necessary to make some investigation before issuing such permissions, averaging several days, often calling on the roads for more information, and frequently requires that 5, 10, or 15 days' notice be given when the application had proposed only 1, 3, or 5 days.

Objections to allowing the railways greater freedom in making tariff changes have been expressed on the ground that it might lead to favoritism and allow less time for the filing of protests, but many who offer such objections seem to be perfectly willing to take their chances with other forms of transportation not so restricted and point to the greater "flexibility" of truck service in meeting their requirements.

The commission has recently denied an application filed by the tariff-publishing agents representing the railways for a general authorization to make reductions in rates to meet the competition of unregulated transportation agencies on one day's notice. The application was renewed later in amended form with a suggestion that a tariff be allowed to go into effect on one day's notice but that the commission reserve the right to suspend it if that should seem desirable on further inquiry, but the commission also denied that.

Whole Theory and Spirit of Regulation Is Out of Date

The whole theory and spirit underlying the Interstate Commerce and related Acts is out of date, and this fact calls for a complete revision and simplification of the whole plan of regulation.

In 1887, when the original Commerce Act was adopted, and in 1903, 1906 and 1910 when it was elaborated into a sort of criminal code, the public was seeking to control what it viewed as a virtual monopoly. Owing to their monopoly, some of the railroads could, and some did, wilfully discriminate in favor of preferred industries or localities. It was primarily to prevent such deliberate discrimination that Congress decided that all railroad rates and services should be minutely specified in tariffs to be filed in Washington, and that it should be a serious offence if any railroad, or shipper, either directly or indirectly, failed to strictly observe the rates and all the other detailed provisions as to services shown in such tariffs. The evil of rebating and discrimination was viewed so seriously that the maximum penalty for such an offence in connection with a single shipment was \$20,000, or two years in jail, or both. A system of regulation could not have been devised by the Chinese better calculated to secure uniformity, stability, rigidity and strict observance of transportation rates, practices and services. That is exactly what the Commerce Act was designed to do and what it has accomplished. Manifestly, such a system of regulation, designed to correct the evils of monopoly which existed a generation ago, is not only unnecessary but positively harmful under free competitive conditions which today call for the utmost enterprise, adaptability and flexibility in transportation rates and service.

It is occasionally suggested by people who ought to know better that railroad managements have not kept abreast of the times. For example, it is said that the railroads have been tardy in developing the use of containers, demountable truck bodies, store-door delivery, and co-ordination of buses and trucks with their rail operations. The fact of the matter is that store-door delivery was in operation on some railroads

before the Commerce Act was adopted in 1887, and the chief reason store-door delivery has not developed is that the Interstate Commerce Commission in 1913, felt constrained by the Commerce Act to hold that it would be an unlawful discrimination for the railroads to accord store-door delivery in Washington, unless it was extended to other points. In other words, experimentation by the railroads with store-door delivery was practically outlawed 20 years ago. This is merely illustrative of the fact that the whole scheme of regulation to which the railroads have been subjected for the past 20 years has been in the nature of a strait-jacket which prevented them from testing out new methods, practices or rates without fear of indictment or reparation suits. Under the present system of regulation, every new proposal, however meritorious, must be scrutinized in the light of so many prohibitions and restrictions, that if it survives the criticism of the operating, traffic and executive officials of a railroad, it is almost certain to be condemned by the lawyers. The result is that while in other industries, enterprise is encouraged and rewarded, in the railroad industry, owing to the maze of regulation and inhibition imposed by Federal and State law, new devices, new ideas and new methods commonly prove merely a source of endless litigation and expense.

Manifestly, since practically every mile of railroad has been paralleled by a highway, the monopoly conditions which gave rise to the present scheme of railroad regulation no longer exist and the purpose of many of the restrictive provisions of the Commerce Act has disappeared. While serving no useful purpose many of these provisions, and the volumes of confusing and fine spun technicalities which have grown up around them, remain to hamper and to restrict the railroads in every effort they make to adapt themselves to the rapidly changing conditions of today.

—From an address delivered at the October meeting of the New York Railroad Club by Alexander H. Elder, general solicitor, Central Railroad of New Jersey.

What to Do About Highway Transport

Fairness to the public, to the railways and to motor carriers themselves dictates program of adequate regulation and taxation

CONSIDERATION for the railways, which have suffered deeply from unfair highway competition, demands that both railways and highways be put upon a basis of equality of opportunity by subjecting each of them to similar forms of governmental regulation. Consideration for the motor carriers themselves, which are suffering internally from abuses growing out of inadequate or ineffective control of highway transportation, demands that comprehensive but not repressive regulation of highway transportation be provided for by legislative enactment. Consideration for the public, which is paying more heavily than anyone else for the provision of highways used by commercial motor transportation, demands that there be a readjustment in the rental paid in taxes and fees by highway carriers for the use of the public roadway, to lift the burden of highway expense from the shoulders of the public and place it where it belongs—upon the shoulders of the users of highway transportation.

These three demands do not conflict with each other. On the contrary, they can all be met by one comprehensive program of commercial motor vehicle regulation and taxation. It is for the legislators, both national and state, to draft the necessary new regulatory laws and to pass upon them, but the principles which should be embodied in such laws are these.

Proposed Federal Legislation

First, as to interstate transportation on the highways. As a matter of principle, all those using the highways for commercial purposes, including both common and contract carriers of property and of persons (with the exception of taxicabs, school buses and hotel buses), should be subjected to certain universal principles of regulation. Both buses and trucks operated as common carriers of persons and property should be under the jurisdiction of the Interstate Commerce Commission or some other designated federal authority, and should be required, as a prerequisite to the beginning of operations, to obtain certificates that their operations will meet the requirements of public convenience and necessity.

In passing upon applications for such certificates, the regulatory authority should give consideration to the quality and probable permanence of the service to be offered by the applicants; to the existing transportation service, the continued existence and adequacy of which are essential to public welfare, whether it is offered by motor vehicle, railway, water or other transportation agencies; to the necessity for and convenience to the public of the proposed service; and to the financial responsibility of the applicant, with requirements for adequate provision for the protection of the public through bonds, insurance or other security.

As to common carriers, there should also be adequate requirements to insure just and reasonable rates, with provisions for the publication of rates and adherence thereto and with proper means of prevention of undue and unjust discrimination. Provision should also be

made for the keeping of proper accounts in a form prescribed by the regulatory authority, and for the filing of such periodic and other reports as the regulatory authority may require. Provision should also be made for the regulation of issues of securities by such common carriers on the highways.

Interstate Contract Carriers

All commercial carriers operating on the highways, except those classified as common carriers, should be required to secure a permit from the duly authorized regulatory body before beginning their operations; to keep such records and file such reports as the regulatory body might prescribe; and to carry liability insurance or file indemnity bonds to protect the other users of the highways and the general public in case of personal injury or property damage. In addition, contract carriers should be required to observe minimum rates as fixed by the regulatory body on a mileage or other appropriate basis, and to comply with the rules and practices and to charge the rates for service as announced by the regulatory body.

Every commercial carrier should be subject to all the regulations and conditions in each state that duly authorized state authorities impose upon all commercial operations on their highways. Finally, opportunity should be given to railways to engage either directly or through subsidiaries in motor vehicle operations on the highways, on equal terms with all other operators on the highways and without discrimination in favor of or against other transportation agencies in the same field. This should include the right by the railways to purchase, equally with all others, highway transportation lines already in operation, as well as to establish new lines. The necessary modification of the anti-trust laws should be made for this purpose.

These requirements, placed upon interstate motor vehicle operation, would not be onerous. Nothing contained in them would even tend to throttle the proper development of highway transportation. On the contrary, these regulatory requirements, while placing interstate highway transportation upon a footing, with respect to regulation, similar to that upon which the railways now stand, would foster rather than destroy the proper development of interstate transportation on the highways.

Proposed State Legislation

Since highway transportation is, in its very nature, a local rather than a national means of transportation, it is largely intrastate in character. Therefore, to state legislation we must look as the principal source of relief from inadequate regulation of highway carriers. The regulatory provisions of all states applicable to intrastate commercial highway transportation, therefore, should be extended in the following ways. Common carriers should be required to secure certificates of public convenience and necessity authorizing their opera-

tion, and the state regulatory commissions, like the national regulatory authority, in acting upon applications for such certificates, should give proper consideration to the quality and permanence of the proposed service, to its effect upon the existing transportation service, to the extent to which public convenience and necessity would be served by the proposed operation, and to the financial responsibility of the applicant evidenced by insurance or a bond for the protection of the public.

In addition, there should be regulation as to the rates, fares and charges of common carriers on the highways,

tions for permits, to consider the effect of the proposed operation upon the highways and upon the safety and convenience of the traveling public. There should be requirements as to accounting and the filing of reports, and as to compulsory insurance for the benefit of the public. As in the case of common carriers, qualifications and hours of service of drivers and regulations as to safety devices and the dimensions, speed and operation of motor vehicles should be provided. As to contract carriers, there should be regulation of rates, fares and charges, at least to the extent necessary to avoid

What Is Needed

As to Interstate Common Carriers—

1. Legislation to place them under jurisdiction of the Interstate Commerce Commission or some similar Federal tribunal.
2. Require them, as a pre-requisite to operation, to obtain certificates of public convenience and necessity.
3. Require tribunal, in acting upon applications for certificates, to consider quality and permanence of service offered, effect of proposed service on existing transportation agencies, the necessity for the proposed service, and the financial responsibility of the applicant.
4. Require publication of and adherence to reasonable rates.
5. Require keeping of proper accounts and filing of reports.
6. Regulate issuance of securities.

As to Other Interstate Carriers—

1. Require them to secure operating permits from regulatory body.
2. Require them to keep accounts, file reports and carry liability insurance or file indemnity bonds for protection of public.
3. Require contract carriers to observe minimum rates fixed by regulating body, and to comply with rules issued by regulatory authority.

As to All Commercial Carriers—

1. Require payment of adequate taxes and fees in return for privilege of using the public highways as a place of business.
2. Provide for adequate highway revenues by increasing license fees and gasoline taxes and by adding franchise taxes and mileage taxes.

As to Intrastate Common Carriers—

1. Require them to meet same regulatory provisions as provided in the case of interstate common carriers, as to securing certificates of convenience and necessity from state regulatory authorities, and as to rates, accounting system, liability insurance, etc.
2. Restrict the hours of service and determine the qualifications of drivers.
3. Regulate sizes, weights, speeds and safety devices of commercial vehicles, to protect the public and the public investment in highways.

As to Other Intrastate Carriers—

1. Apply same regulations as to permits, accounting system and compulsory insurance, as are provided in the case of interstate carriers other than common carriers.
2. Apply same regulations as to qualifications and hours of service of drivers, safety devices and restrictions on sizes, weights and speeds of vehicles as are applied to intrastate common carriers.
3. Require adherence to reasonable and non-discriminatory rates.

similar to that imposed upon the railways. There should be requirement of uniform accounting systems, provision for the filing of such reports as might be required by the state regulatory commission, and there should be regulation of security issues. The qualifications and hours of service of drivers should be determined by the regulatory commission, which should also prescribe such regulations as to safety devices and measures, as well as to the size, weight, speed and operation of motor vehicles, as are required by the public interest.

Intrastate Contract Carriers

Commercial carriers other than common carriers should be required to secure permits authorizing their operation, the regulating body, in acting upon applica-

discrimination between shippers or communities, and to avoid undue competition.

Would Foster, Not Injure, Highway Transport

There is nothing in these proposed requirements as to intrastate transportation on the highways which would even tend to retard the sound development of this form of transportation. The requirements are not burdensome, would not necessarily destroy investments which have been made in highway transportation, and would not so surround highway transportation with curbs and prohibitions as to reduce its effectiveness as a flexible means of transportation. These requirements would stabilize highway transportation, put an end to the abuses which have developed in its unregulated history,

assure shippers that they would enjoy the benefits of highway transportation instead of being made the victims of it, and guarantee to the public, whose fundamental rights to the use of the public highways is unquestioned, that they may avail themselves of their privilege without danger to their lives.

It is for each state legislature to decide the extent to which they shall limit the sizes, weights and speeds of the commercial vehicles using their highways. The conditions existing in each state will determine this. It is suggested, however, that the protection of the public and of the public investment in highways dictates restrictions to sizes and weights substantially lower than those now in effect in most parts of the country. It is for the state legislatures, too, to provide the means by which these restrictions and the other regulatory features shall be enforced.

Proposed Additional Taxation

In addition to the enactment of legislation providing for proper regulation of motor transportation, there is urgent need for a new method of financing the highways, including the assessment against commercial carriers of adequate charges, in addition to license fees, to pay for the benefits they enjoy from their ability to make commercial use of the public highways, these charges to be based upon the extent of such use. While the highways were originally developed as a necessary adjunct to government to provide means of communication and transportation between the farmer and his market place, they have now developed far beyond that to a point where they are burdened with commercial traffic of a long-haul and transcontinental character. To this extent—a large one—the highways have lost their characteristics as an adjunct to government. Because of this development, the *ad valorem* taxpayers should be relieved of the contributions which they make toward highway purposes, and commercial transportation on the highways should assume its full share of this contribution, in order to give it equality with other forms of transport.

To do this, the true costs of the highways should be ascertained, considering the highway in the same category as a privately owned utility. If this were done, and if the requirement were made that users of the

highways should pay these costs, the users would pay an amount equivalent to the *ad valorem* taxes upon the value of the highways, an amount sufficient to cover the cost of highway maintenance and administration, an amount sufficient to set up a maintenance replacement fund to take care of the rebuilding of the hard surface pavements which have a limited life, and an amount sufficient to return a fair rental upon the value of that portion of the highways which has been paid for by the property taxpayers and by the federal aid. Furthermore, the commercial users of the highways would pay the extra costs of construction and maintenance made necessary to properly accommodate the heavier and larger vehicles operated by such commercial users.

Where Increased Taxes Should Fall

The exact amount of the increase in taxes and fees which should be paid by the commercial users of the highways is a matter for determination in each state, but it should be based upon the broad principles outlined above. It would undoubtedly involve an increase in the gasoline taxes in all or nearly all states. It would undoubtedly involve an increase in license fees also. It would involve a franchise tax, like that paid by railways, upon the commercial users of the highways. It would certainly involve also a mileage, ton-mileage or gross revenue tax on commercial operators using the highways, equivalent to at least 10 per cent of their gross revenues.

The present system of financing the highways places too great a burden upon property taxpayers and upon the owners and operators of motor vehicles which rarely, if ever, use the highway systems, confining their operations to city streets. A sound program of adequate taxation to pay for the highways would shift these burdens to the actual users of the highways, with an extra charge—nothing more or less than rent—against those motor vehicle operators who use the public highways as a means of carrying on a business for private profit.

The program of regulation and taxation for motor vehicles proposed here is equitable and fair. It would foster the sound development of our system of highway transportation and its co-ordination with other forms of transport.



The Delaware, Lackawanna & Western Station at Bloomfield, N. J.

Government Should Dispose of Its Barge Line

Expenditures upon inland waterways should cease, except where their users can pay tolls sufficient to reimburse public for providing them

THE government should immediately dispose of the Inland Waterways Corporation. This contention is in line with the very general opposition to the government in business, as expressed of late by so many business leaders before the Shannon Committee of the National House of Representatives. With the government itself operating the Inland Waterways Corporation, the railroads are subjected to a form of competition which is unfair in many respects, not the least of which is the fact that the corporation is relieved from important items of operating costs, which rail carriers and private enterprises generally must meet out of revenues.

The Inland Waterways Corporation pays no taxes on its floating equipment, neither does it pay any interest on its investment or any rental for the channels on which it operates. In fixing its rates and determining the cost of moving traffic, it therefore takes into account neither taxes, interest, nor channel rentals, as items of cost. It thereby benefits from the expenditure of taxpayers' money for the construction and maintenance of its waterways and equipment, and then denies that these expenditures or any part thereof should be charged against it as a part of its transportation cost.

The federal barge line is further aided by legislation which forces the railways to haul traffic the shortest possible distance and then turn it over to the barge line for the long distance haul. Yet, in spite of these inequalities, the federal barge line has failed to date as a business proposition, even according to its own figures. For this reason, the longer the government remains in the barge line business, the more money it will invest, the deeper it will become involved, the more it will lose and the harder it will be to dispose of the business. After 14 years' trial, the demonstration has failed and the promise to retire should be fulfilled.

Curtail Unjustified Development

Another step in the solution of the transportation problem should be the cessation of further expenditures for inland waterway development except where the justification for such expenditures can be demonstrated, after full allowance is made for all costs, including a return

on expenditures for the improvement and maintenance of these projects. In all cases, consideration should be given to the effect that the proposed extensions of operation on an inland waterway will have upon other forms of transportation, the continued existence and adequacy of which are essential to the public welfare.

One of the principal arguments that has been advanced for the development of inland waterways has been that it has been impossible for the railways to expand their facilities sufficiently to enable them to handle our increasing traffic. This argument no longer avails, for the average annual increase of railway freight business during the 9 years ending with 1929, was only one seventh as great as the average annual increase throughout the preceding 30 years. There is nothing in sight to support the contention that the further development of waterways is warranted as a means of relief for the railways.

Railway Service Cheaper and Better

Nobody denies that better freight service can be rendered by rail than by rivers and canals. Therefore, the only remaining test of the desirability of extensive development of inland waterways is whether they can provide cheaper transportation than the railways. The contrary can be demonstrated if all the costs of water transportation are considered. The entire cost of transportation by rail is included in the rate charged. The cost of transportation by inland waterway, however, is divisible into two parts, the first consisting of the rate paid by the shipper, and the second, the additional amount paid by the public in taxes to cover the interest upon the investment for the improvement of the waterway and the building of terminals, and the expense of maintaining them. It has been demonstrated on the Erie Canal, on the Ohio river, on the Mississippi river, and elsewhere that the development of inland waterways results in reductions of freight rates smaller than the increases in taxes it causes.

The nation has a railway system today which is being operated efficiently and is more than adequate to all demands being made upon it. When it is proposed to de-

What Should Be Done

Government should retire from operation of barge lines in competition with private enterprise—the railroads as well as private carriers by water.

Government should continue improvement of inland waterways only where the expenditures can be justified after full consideration is given to all costs involved, including the cost to the taxpayers who furnish the money for improvement and maintenance.

Railroads should be permitted to make competitive rates.

Commercial users of improved waterways should be required to pay tolls sufficient to compensate taxpayers for their investment in such waterways.

Railroads should be given opportunity to enter this field of transportation without handicap, as compared with other transportation agencies.

velop another system of transportation by the expenditure of public money which, it is claimed, will carry freight at less cost, that claim should be substantiated. It is contended also that the development of waterways will not injure the railways—that waterways and railways do not compete, but supplement each other, and that waterway development will so stimulate traffic as to increase the amount of it for both waterways and railways. This likewise has not been demonstrated; rather, wherever inland waterways exist, they have been and always will be competitors of the railways, and the more extensively they are developed, the more traffic they will take from the railways—not because the actual cost of transportation on them is less, but because a large part of that cost is defrayed by the taxpayer.

Permit Railways to Compete on Equal Terms

When waterway carriers engage in interstate commerce in competition with rail carriers, it is not only fair and just but necessary to the public welfare that both agencies be subjected to the same degree of regulation.

To bring about equality of opportunity, the Denison Act, compelling through routes, joint rates and divisions of rates with inland waterway carriers should be repealed. The railways should also be permitted to establish rates

on specific commodities to meet waterway competition, without reference to rates on other commodities between the same or other points.

The railways should be permitted to make rate changes on shorter notice than 30 days, or their competitors should be held to the same requirements. Likewise, if discrimination, rebates and secret rates by the railways are detrimental to the public interest, they are equally detrimental when initiated by waterway carriers. For these reasons, the jurisdiction of the Interstate Commerce Commission should be extended over operators on the inland waterways.

In addition to changes in the present laws, new legislation should provide for the levying of charges against all commercial users of improved waterways in the United States, to compensate the taxpayers for their investment in these waterways and expenditures for their administration, maintenance and operation. At the same time, the laws should be so modified as to provide that consideration be given to the requirements of land as well as water transportation in the making of bridge and channel changes on navigable streams, and so as to provide that the costs of such improvements be divided between the interests concerned in the proportion by which they will each profit by waterway development.

Investors, After Careful Study, Oppose Waterway Development as Uneconomic

Supplementing the opposing statement of counsel for railroad investors at the Senate Foreign Relations subcommittee hearing upon St. Lawrence waterways treaty, Milton W. Harrison, president of the Security Owners Association, New York, has announced the completion of a study of transportation by waterway as related to competition with rail carriers.

The report covering many phases of the history and development of the inland, intercoastal and Great Lakes-St. Lawrence waterways, registers the opposition of investors against the continuing development with public funds of competitive transportation service to hamper the railroads. The report claims that despite the investment of billions of dollars in waterways development, obtained by taxation, the public had derived no commensurate benefit either through cheaper rates or greater efficiency of service.

"Such reductions in rates as have been effected," Mr. Harrison contended, "have been converted into added profit by the special interests using free the rights-of-way, locks and other facilities of the waterways. No charges are levied upon the users of the waterways to pay even a part of the carrying charges of the capital invested by the government; furthermore, maintenance charges are paid by the government. What do the nation's taxpayers receive to justify this outlay?"

"It is true," Mr. Harrison continued, "that rates on the waterways are cheaper, no allowance for taxes or maintenance being included. Could this benefit be passed on the public in the form of lower prices, or to the farmer so often cited as the major excuse for waterways development, there might be some slight basis for continuing to develop the waterways program during normally prosperous times. The deliberate weakening of public credit and the nation's railroad transportation system for such purpose, however, is hardly in keeping with sound economic procedure. It seems manifest, therefore, that for the present at least expenditures for inland waterways, except for flood control and those that are economically justified, should be discontinued entirely."

As to the St. Lawrence waterway, Mr. Harrison denied the claim that the railroads were unable to handle the peak movement of wheat ten years ago. "And it has no basis of fact today," he said, "because the railroads of the United States and Canada have a capacity far in excess of traffic estimates of the St. Lawrence waterway; but in view of the failure of

traffic estimates upon the New York Barge Canal these predictions as to the St. Lawrence scarcely seem to be accurate.

"Far from producing substantial new traffic," Mr. Harrison continued, "or opening up new territories excluded from national or international markets, the traffic borne by the waterways largely represents diversion from the rail carriers, artificial duplication of facilities and unjustified economic waste since in the peak traffic year 1929 the railroads were equipped to handle 50 per cent. more traffic than was offered."

Lifting the ban against the railroads participating in waterways transportation through the Panama Canal is urged, it being contended that it is against the best interests of transportation that the railroads remain rail companies exclusively. They must be allowed to become national transportation agencies, coordinating other services with their own in order that economic waste may be eliminated, transportation credit and financial stability enhanced and that all shippers may be given the benefit of through routing at lowest cost.

Alluding to the more favorable competitive factors enjoyed by the waterways and to the serious inroads made by highway competitors upon the railways, Mr. Harrison urges Congress and the Interstate Commerce Commission to "unshackle the railways and give a free hand to all, or to place all transportation agencies upon a reasonable parity."

The report reminded Congress that the Inland Waterways Corporation was projected as an act which stipulated that it was a temporary experiment to be conducted only until it could be determined whether or not its operations would attract private capital. If so, it was to be sold to private interests.

"Specifically," said the report, "investors recommend amending the Panama Canal act to permit the railroads to engage in intercoastal transportation and in the coastwise and inland waterway business, even though competition might be lessened. The public would be protected by the Interstate Commerce Commission. We likewise recommend amending the Denison act requiring extension of the Inland Waterways Corporation and prohibiting carriers from purchasing the assets of the corporation.

"We urge defeat of the Shipstead-Mansfield bill, calling for an issue of \$500,000,000 of waterway bonds insofar as it relates to further extension and improvement of inland waterways for navigation purposes . . ."

Withdraw the Air Line Subsidies!

Commercial aviation, and the users of air mail, express and passenger service, should pay their own way

THE national policy which creates unfair competition between the railways and the air lines for passenger, mail and express traffic—unfair competition which, as shown elsewhere in this issue, has resulted in the diversion of millions of pounds of mail and express and hundreds of thousands of passengers from railway to air transportation—is unjustifiable from any standpoint. The unfair elements of competition between railway and air transportation can be eliminated in only one way—by the removal of the heavy subsidies which make it possible for air lines to thrive, not upon the earnings attracted by the speedier service rendered, but upon the generosity of the government in disbursing the funds contributed by taxpayers. Air transportation, it is conceded, is superior to railway transportation in certain respects, but it is likewise, in its very nature, a more expensive form of transportation. The added expense of the superior service should be assumed, not through taxes by the general public, as it is now under the system of government subsidies to air lines, but by the users of air transportation service.

The railways should be relieved from unfair air line competition for mail traffic by the same process as that necessary to relieve the taxpaying public of the greater part of the cost of maintaining the air mail service. When the Post Office department, year after year, pays nearly three times as much to the air mail carriers as the air mail earns in postage, it is obvious that there is a deliberate purpose to subsidize the air mail carriers and, by keeping air mail postage rates so low that it is impossible for them to meet the cost of the service, to give official encouragement to the use of air mail service instead of railway mail service. This condition should be and can be corrected, for the purpose of making the air mail service self-sustaining and not a burden upon both railways and the public, by increasing air mail postage rates, or by reducing the payments to air lines for the transportation of air mail, or by both of these measures.

As pointed out in an article entitled "Uncle Sam's Express Business," published elsewhere in this issue of *Railway Age*, the tax-supported parcel post service is thrusting itself more and more into direct competition with privately-owned, taxpaying express companies. Now, despite the fact that the parcel post, like the Post Office department as a whole, has never shown even an operating profit, and despite the fact that the express companies with which it competes have an efficient, reasonably-priced air express service of their own, which is well-equipped to handle any merchandise shipment requiring the extra service, these mail subsidies have been extended to the carriage in air mail service of parcel post packages. This additional direct competi-

tion with established companies, at rates which do not put the entire cost upon the users, increases the parcel post loss which must be made up by taxpayers, and deprives the express companies of traffic to which they are reasonably entitled. There is no economic need for duplication of service between the express and the government; there is no need for the government to carry merchandise at all. The taxpayers' money could be saved by eliminating that portion of air mail subsidies paid for parcel post.

The second and the more astonishing form of subsidy for the air lines, which should be eliminated, is the system of bonuses with which the Post Office department encourages air lines to carry passengers in mail planes. These bonuses have nothing to do with the transportation of mail, and simply afford a direct means by which air lines are able to secure from the government and from the taxpaying public part of the fares of the passengers carried on mail planes. This form of subsidy, now granted to the air lines by the Post Office department, should be eliminated entirely.

The third form of government subsidy to the air lines—the installation of aids to air navigation by the Department of Commerce, at a cost of millions of dollars each year—may be excused to some extent on the ground that the government has provided similar aids to navigation to steamship lines. There may be some merit in this contention, yet it appears that the cost of the air navigation facilities installed is excessive. In the fiscal year ended June 30, 1932, the Department of Commerce appropriated nearly \$9,000,000 for air navigation facilities, while the total

value of all airplanes used in air transport operations last year was only \$9,167,000. This form of subsidy to the air lines, if not eliminated, should be materially reduced.

Another contribution of the Department of Commerce to air transportation is the work which the department does in promoting the use of air transportation. One of the major duties of the aeronautics branch of the Department of Commerce is the advertisement and promotion of air transportation, a function unique in many respects and justifiable in none. These activities of the Department of Commerce should be stopped.

It is a habit of our people to look upon government subsidies to industry as un-American. There is nothing about air transportation to make it an exception to this rule. Air transportation is capable of standing upon its own feet. It should be permitted to ride no longer upon the shoulders of the taxpayers, among the largest of which are the railways, which feel deeply the inroads of the competition which they, as taxpayers, are helping to support.

What Is Needed

1. Make the air mail service self-supporting by increasing air mail postage rates, or reducing payments to air lines for the transportation of air mail, or both.
2. Eliminate the wholly unjustifiable payment by the Post Office department of bonuses to air lines which carry passengers in mail planes.
3. Reduce expenditures of the Department of Commerce for aids to air navigation.
4. Abolish those activities of the Department of Commerce which are devoted solely to the advertising of air transportation and the promotion of its use by the public.

Let the Railroads Operate Steamships

Permit rail carriers to make competitive rates—Place water transportation under the Commission

THE solution of the problem confronting the railroads because of intercoastal competition lies in the correction of the discriminatory and binding regulations under which they are forced to compete with steamship companies using the Panama canal, and the power to bring about the correction lies, therefore, with the public. The railroads cannot now own ships and engage in transportation by water except under restrictions from which other operators are free.

Otherwise they could provide a transportation service that would not only support itself but would co-ordinate water and rail service to the advantage of the public. At the same time, the railroads would be in a better position to compete with steamship companies. It is apparent, then, that the first step to be taken is the repeal of those provisions of the Panama Canal Act that now prohibit rail carriers from engaging in steamship operation on a basis of equality with others.

Allow Railroads to Adjust Rates

This is only one step, however, for in addition to being hindered from engaging in shipping, the railways are prohibited from making competitive rates to keep traffic moving over their own lines. Steamship companies enjoy the privilege of making rates as much lower than rail rates as they desire for the purpose of attracting traffic to move by water, whereas the railroads are prohibited from taking the same steps relative to the transportation of those commodities with which they would like to compete with the steamships. If the railroads were permitted to meet competitive rates, they could regain much of the traffic that is now lost to steamship companies.

The stumbling block now is the Fourth Section of the Interstate Commerce Act, known as the long-and-short-haul clause, the aim of which is to eliminate undue and wasteful circuitous routing, to protect communities not favored by competitive transportation facilities and to prevent the railroads from lowering rates to levels that are clearly unprofitable. The clause was originally drafted when the railroads were regarded as monopolies, but with the development of Panama canal and other competition the clause is now one-sided, since it applies only to the railroads and not to their water competitors.

Whenever the railroads now seek relief from the application of this clause, the intercoastal carriers intervene before the commission to prevent their rivals from adjusting rates, while the railroads have no chance to retaliate, since there is practically no legal limitation on the power of the shipping companies to charge whatever rates they please. This one-sided regulation violates all

What Should Be Done

Revise the Panama Canal Act to permit railroads to engage in steamship operation.

Amend the Interstate Commerce Act to permit competitive adjustments of rates under the long-and-short-haul clause and on specific commodities, without regard to their relationship to other commodities.

Allow the railroads to make rate changes, especially reductions, on shorter notice than 30 days.

Remove the regulations which force the railroads to "short-haul" themselves in favor of their water competitors.

Place commercial operators by water under the jurisdiction of the Interstate Commerce Commission.

principles of fairness, in competition and prevents real and effective competition between the boat and rail lines.

The second measure of relief required, then, is a change in existing laws to permit the railroads to so adjust their rates as to enable them to compete with the water carriers—both those operating through the Panama canal and those operating from port to port on the coast. The Interstate Commerce Act should be amended to permit competitive adjust-

ments of rates under the long-and-short-haul clause without disturbing the rates to intermediate points. The Act should also be changed to permit the establishment of rates on particular commodities to meet competition without disturbing the rates on other commodities between the same or other points and independent of claimed relationships with the rates on the same or other commodities between other points or territories.

The Act should be further amended to provide for railway rate changes, especially reductions, on shorter notice than 30 days unless and until similar periods of notice are required of water competitors. At present, the Act requires the railroads to publish and maintain rate schedules and will not permit them to change rates without permission except after 30 days' notice, whereas their water line competitors operate under no such restrictions.

The provisions of the Act giving the commission power to suspend rates should also be repealed unless and until similar provisions are applied to competitors. Likewise, the power of the Interstate Commerce Commission to make minimum rates for rail carriers should be removed unless and until similar restrictions are placed on their steamship competitors.

New Legislation Needed

In addition to changing the present legislation, new legislation is needed to place the railroads on a parity with water transportation by extending the jurisdiction of the Interstate Commerce Commission over commercial operations by water. Commerce between American ports is now regulated in part by the Shipping Board and in part by the Interstate Commerce Commission. Commerce from or to interior points, moving under such common arrangements as joint rates or through bills of lading, is subject to the jurisdiction of the commission, whereas strictly port-to-port traffic, with the exception of that carried by railroad-owned ships, is under the control of the Shipping Board. Since the Interstate Commerce Commission actually regulates the rates on water shipments under its jurisdiction, while the Shipping Board does not, there exists the anomalous

situation of commerce moving by water between American ports under entirely different conditions.

Many shipping companies voluntarily bring themselves under the jurisdiction of the commission by issuing through bills of lading and quoting through rates. It may, therefore, be assumed that in the main the results have been satisfactory and that this experience in part qualifies the commission to undertake a much more important role with respect to the regulation of all coastwise water transportation.

Aside from the fact that the Interstate Commerce Commission is already required to take a hand in regulating the rail portion of rail and water competition, the commission is the logical agency to regulate intercoastal rates since it is self-evident that all coastwise trade should be regulated by one administrative body and governed by uniform rules. If the Shipping Board should regulate rates on through rail-water shipments, such regulation would put that body into the business of controlling railroad rates. On the other hand, since the commission already regulates joint rail-water rates, the extension of its authority rather than that of the Shipping Board is clearly the more logical.

Again, the commission cannot ordinarily require a railroad to short-haul itself in making a through route in conjunction with another rail carrier; yet, if one of the carriers is a water line, the railroad is not protected with respect to its long haul. Such legislation can be construed in no other way than as a deliberate policy on the part of the federal government to foster water transportation. While the "full-vigor" clause of the Interstate Commerce Act does not specifically state that the Interstate Commerce Commission is to protect both agencies of transport, this responsibility is definitely implied. Yet, when the commission refused to grant the carriers Fourth Section relief in 1922, it based its refusal in part upon the mandatory character of the "full-vigor" clause which requires it to safeguard the interests of the intercoastal water carriers. Although the Interstate Commerce Commission accepts without question its responsibility to look after the welfare of both rail and

water transportation, the Shipping Board interprets the "full-vigor" clause as referring to water transportation alone.

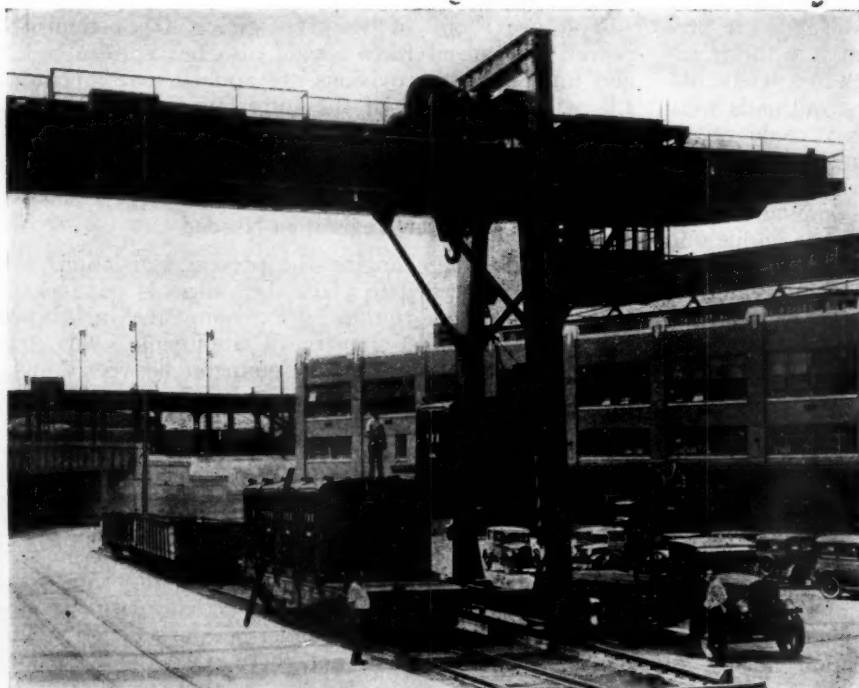
The need for regulating intercoastal commerce is imperative. There will be general agreement that sound policy, as related to common carriers, must rest on the principle that the public is entitled to that mode of conveyance which is the most economical, but the determination of what is economical should be applied with even-handed justice to all forms of transport. Regulation of the railroads while their water line competitors charge whatever rates they please, is not only unfair to the rail carriers, but is not furthering the permanent interests of the merchant marine.

At the present time the Shipping Board has nominal jurisdiction over coast to coast rates. Sporadic legislative efforts have been made to strengthen the administrative arm of the board, but at best such a policy would be only a makeshift. In the interest of co-ordinated regulation and in keeping with the economics of rail and water transportation, the Interstate Commerce Commission should be vested with the same power over intercoastal rates that it now exercises over railways. It then follows that the third measure of relief to be applied to intercoastal competition is the extension of the provisions of the Interstate Commerce Act to commercial operators by water.

Further consideration should also be given the economics of water transportation. Steamship operators engaged in intercoastal service should not be subsidized by the government through huge expenditures for facilities and through liberal loans with which to construct ships.

Large expenditures by the government for unnecessary port facilities should likewise be curtailed. Water operators should also be required to pay reasonable rentals for the facilities used and should be taxed in the same manner as the railroads. The rates charged by water carriers would then be based on the actual cost of the service and would no longer be borne, in part, by the public in taxes.

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How the Pennsylvania Handles Five-Ton Containers